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THE ELEVEN-YEAR SCHOOL SYSTEM OF CONCORD, NEW HAMPSHIRE

In 1910 the superintendent of schools of Concord, New Hampshire, L. J. Rundlett, recommended to the board of education of that city that the organization of the school system be modified in such a way that pupils in the eighth year be admitted to courses in algebra and Latin and to other courses which up to that time had been looked upon as belonging in the high school exclusively. The board of education adopted the recommendation, thus virtually eliminating the eighth grade.

The motives for this change were partly fiscal, partly educational. The Concord schools were at that time overcrowded, and the funds available for the conduct of the schools seemed inadequate. The superintendent stated that a change such as he recommended would save money. On the educational side, it was pointed out by the superintendent that the time of the pupils would be saved because they would complete their high-school work at an earlier age.

The Concord reorganization antedated the junior high school movement. Perhaps it would be more in keeping with the facts of educational history to say that it was one of the first examples of

the junior high school organization, antedating the use of the name and preceding the acceptance of the junior high school plan by the country in general.

From the first, the Concord plan encountered opposition. Much of the opposition came from the high-school teachers and administrative officers who could not bring themselves to believe that pupils in the eighth year of their schooling are mature enough to succeed in secondary-school courses. The opposition of the high-school staff has continued and exists in a measure after sixteen years of trial of the plan. Some of the patrons of the schools share doubts as to the advantages of an eleven-year system. It seems to be doubtful whether any large financial economy has been effected. Last year the board of education decided that there ought to be a study of the situation and employed Professor F. E. Spaulding, of Yale University, to make a survey. Professor Spaulding recommended that the eleven-year plan be changed to a twelve-year plan with an enlarged junior high school. At present, the junior high school includes two grades; Professor Spaulding recommended that it be extended so as to include three grades.

Professor Spaulding's recommendation called forth a vigorous retort from Superintendent Rundlett, and, by a vote of five to four, the board of education decided not to accept it. The document in which Superintendent Rundlett sets forth his objections to Professor Spaulding's report and also some passages from the survey report make it clear that the question of how a school system shall be organized is one that cannot be discussed without arousing personal feelings of an intense and persistent type.

Perhaps it may be well for the present writer to admit that his prejudices are all in favor of the eleven-year plan. Certainly, it is proper to point out that the issue raised in Concord is one which is sure to be recognized increasingly as a major administrative issue in the immediate future. The Kansas City experiment is a matter of increasing interest and discussion. Salt Lake City has adopted a plan which, in its motives and form, is very like the Concord plan. In the South, whole states have eleven-year systems and do not intend to change. The Association of Colleges and Secondary Schools of the Southern States has compiled an elaborate report

which shows that the college standing of students who have graduated from eleven-year systems is satisfactory. Such a city as Knoxville, Tennessee, though a part of a state system which has eight years in its elementary schools, has an eleven-year system. Most of the counties of Maryland have eleven-year systems and are successful in their high-school work. When Professor Spaulding reports to the Board of Education of Concord that it is his judgment that the eleven-year system should be abandoned, he pronounces on an issue which has much broader bearings than appear at first sight. When the superintendent of schools of Concord replies in defense of his sixteen-year-old experiment, he is discussing matters that have more than local interest.

It is not in place here to report the points on which Professor Spaulding and Superintendent Rundlett disagree. The present writer has made a careful study of the survey report as it was published in one of the Concord newspapers, of the superintendent's reply, and of such correspondence as is available with regard to the points of disagreement. He has been impressed by the apparent lack of mutual understanding on the part of those involved in the discussion. The arguments seem to exemplify what Kipling in another connection has spoken of as an "error in the fourth dimension." The two parties to the discussion in Concord seem to need an interpreter. It may be overbold for one who is in favor of the elimination of the eighth grade to offer his services, and he may complicate matters to the extent of projecting himself into still another dimension. It seems clear, however, that Professor Spaulding has seen only one side of the matter. He wants a junior high school that is broad and rich in its content. He does not ask Superintendent Rundlett to go back to the old-fashioned seventh and eighth grades with nothing but rudimentary courses. Superintendent Rundlett has demonstrated that pupils in their eighth year of school can master a broad and enriched content. The two parties to the controversy are agreed that the eighth grade is gone and should not come back. Both want Concord to have an enriched program. Superintendent Rundlett wants the enrichment to be described as an extension of the senior high school. He has the vision to see that the senior high schools in American cities are going to include in the future what are now

known as "junior-college courses." Professor Spaulding is evidently operating in the same spirit when he says that American cities understand a twelve-year school system and that we should enrich the curriculum and take full advantage of the willingness of cities to pay for the twelve years.

It seems clear that, if these two gentlemen could be induced to associate with each other, they would be able, after a little time, to produce that type of interesting harmony which comes from combining two parts which are not identical in notation but congruous in spirit and effect.

The main point is that Concord was one of the first cities to see that the old-fashioned eighth grade ought to be abandoned. Concord is now leading the way to an enrichment of the school opportunity of its own children and of all the children who are to have enriched courses. There are some of us who believe that the enrichment should be labeled "junior college" and should be explicitly acknowledged to be of the type that is now thought of as freshman work in college. Those of us who believe this think that it will be well to serve notice without delay on colleges and boards of education to the effect that the American high school has entered the college field and will be heard from in that field from now on. There are others who, like Professor Spaulding, prefer to expand inside the elementary school and high school and either postpone or entirely omit the discussion of adjustment of the curriculums with the colleges.

Whichever view one takes, it is interesting to note that the discussion is on. It is to be hoped that others will join. Even if it happens that some harsh words are exchanged, the discussion is clearly to be recognized as important enough to justify very intense thought and even intense feelings.

A COMMISSION ON THE EQUITY OF TEACHER PLACEMENT

Cases are sometimes brought to the attention of instructors in departments or schools of education which involve conflict between teachers and teachers' agencies. On the one hand, the teacher sometimes believes that the agency claims a fee when it has not performed services which warrant such a claim. In another type of case a university or college appointment bureau may have notified the candi-

date before the teachers' agency knew of the vacancy and yet the teachers' agency claims the full service fee. On the other hand, a teachers' agency sometimes feels that a teacher has broken his contract with it.

Complaints originating in these and other types of cases are frequent enough, in the opinion of the members of the National Society of College Teachers of Education, to warrant the appointment of a commission to investigate and report on them. Such a commission was authorized at the last annual meeting of the society, and the president appointed J. B. Edmonson, of the University of Michigan, J. W. Withers, of New York University, and F. N. Freeman, of the University of Chicago, as members of the commission.

The commission conceives its function to be: (1) to receive complaints concerning alleged unfair treatment on the part of teachers' agencies from teachers, superintendents, supervisors, principals, or other school officers, or complaints from teachers' agencies concerning alleged violations of contracts by teachers; (2) to investigate such complaints and to ascertain the facts by obtaining statements from parties to the controversy or from other first-hand observers; (3) to formulate, if possible, opinions on the equity of the cases in the light of professional ethics; and (4) to report the findings to the society with a view to their publication.

The commission also hopes to engage in supplementary investigations for the purpose of ascertaining the general facts about teacher placement, arriving at principles which may be agreed on by all concerned and disseminating information on these general facts and principles.

The National Association of Teachers' Agencies has already taken the initiative in promoting just dealing between teachers and teachers' agencies by adopting a code of ethics. The commission will seek the co-operation of this association in arriving at a set of principles which both can approve. Some correspondence has already passed between the two groups. In dealing with individual cases, the commission will try to base its judgment on general principles agreed upon by the National Association of Teachers' Agencies and the commission.

The members of the Commission on the Equity of Teacher

Placement are prepared to receive and investigate complaints from teachers or other school officers or from teachers' agencies regarding alleged unfair treatment. Correspondence may be addressed to the chairman or to one of the other members of the commission. A blank will then be sent, on which a formal statement may be made.

F. N. FREEMAN, *Chairman*

COLLEGE-ADMISSION REQUIREMENTS

The October number of the *Bulletin of the American Association of University Professors*, 222 Charles River Road, Cambridge, Massachusetts, contains a report prepared by Committee G on "The Selection, Retention, and Promotion of Undergraduates." High-school principals and teachers will find in this report very valuable and interesting material on the history of college-admission requirements and on the present tendencies, especially those which are commonly referred to by the term "selective admissions."

Several typical paragraphs from the report follow. The quotations here made omit the references to the very full bibliography that is a part of the report.

The chief observable fact is that entrance requirements have tended to increase in amount, in number of subjects, and in freedom of option. The average boy preparing now, say, for Yale, must find room for nearly two years more of work than was required sixty or seventy years ago, and he must be prepared to pass an examination much more difficult in kind. Until 1800 only three subjects, Greek, Latin, and arithmetic, were required for admission to any college in the United States. As late as 1870 Harvard required but three substantial subjects, Greek, Latin, and mathematics, with a smattering of history and geography. But between 1800 and 1870 eight additional studies found place somewhere among admission subjects: geography, English grammar, algebra, geometry, ancient history, United States history, physical geography, English composition. Between 1870 and 1875 were added physical science, English literature, and modern languages. The now prevailing "point" or "unit" system has developed almost entirely since 1897; it provides for the accumulation at entrance of a certain required number of points or units in listed and evaluated subjects of study. The number of these subjects varies between twenty and forty, or even fifty.

There are indications that in the early days of American education college-entrance requirements were more rigid on paper than in actual practice, but there can be no question that with the spread of preparation over so many subjects some shallowness has resulted. In 1655, we read, a student is not admitted

to Harvard unless he "can readily make, speake, or write true latine in prose, and hath skill in makeing verse, and is completely grounded in the greek language." It is claimed that with the increase in number and diversity of subjects since 1870 there has been no corresponding increase in the total amount of knowledge required; indeed that we may well doubt whether boys are so well trained today as they were then. Perhaps a truer statement would be that, viewing entrance requirements as a historic whole, an increase in absolute quantity and in number and variety of subjects has been accompanied by a loss of facility in the use of the classical tongues.

Despite its obvious nature, the fact needs stressing that the effectiveness of college work depends directly upon the entrance requirements. The ablest professor cannot impart instruction of college grade to a class of high-school youths, or to college students studying high-school subjects. And, as the upper classes develop out of the freshman year, the standard of that year fixes the standard of the college. If less than fourteen units are required by a college from candidates for its freshman class, a strong presumption is thereby raised that the college is devoting part of the time of its collegiate classes to instruction in subjects which, in any well-organized educational system, are now left to the high schools. . . .

In regard to entrance requirements, the two chief movements of recent years have been toward raised standards and increased uniformity. Few object publicly to the raised standards, but it has been remarked that the movement toward a general uniform system of entrance requirements tends to continue the rigidity, the lack of elasticity, the grouping together of good and poor students that prevails in the schools, and to that extent is of questionable wisdom. But the increase in uniformity has had so many good results, has helped so materially to raise academic standards, to make the work of the schools easier and more efficient, to improve the relations between the schools and the colleges, that it must not be lightly attacked. Indeed, there is no reason why the system should not, with all its uniformity, be flexible enough, both nationally and locally, to provide for the satisfactory testing and accepting of able candidates with different opportunities and different types of training, putting emphasis more on the ability and achievement of the candidate than on the books and courses of his preparation. . . .

Certificate versus examination.—Few subjects in American education have been debated so warmly and so voluminously as this. Even the followers of the middle path who are willing to accept students equally by examination and certificate, or by a combination of the two, must take side against those who hold that only the one or the other is a fair test. Until 1870 the only gate to the college was some form of examination. In 1871 the "accrediting system" was introduced by the University of Michigan. After five years' experience a local committee found that those admitted by school diploma averaged higher in college than those admitted by examination. But the value of this conclusion

has been questioned. At any rate, twenty or twenty-five years ago the accrediting system was rapidly spreading from the West to the East, and it looked as if the method would become universal. Since then, however, especially with the growth of the College Entrance Examination Board and the continued conservatism of the larger endowed universities, the tendency has met some resistance save in the West and in the state universities. . . .

Between the extreme and opposing views which we have been considering lies the widespread realization that high school and college have related though different tasks and that their problems will best be solved by enlightened co-operation. The attempts at adjustment fall under three main types: (1) attempts to secure flexibility in admission requirements (by absolute prescription, by the group system, or by the system of free electives); (2) alternative methods of admission; (3) attempts to secure uniformity.

A number of the plans of admission which we have considered in previous sections of this chapter are motivated by a desire on the part of the colleges to dovetail so far as practicable with the high schools. The tendency to do so has been strong and is growing stronger, and many experiments in the way of partial or restricted concessions have been made to the schools. Chiefly in the West, the colleges and universities tend to accept for admission any reasonable course of study approved by the better high schools. Many colleges admit the recommended graduates of any first-class high school without regard to the subjects studied in the high school. Usually, however, eight or ten fundamental units are required, and either much or complete option is permitted in the subject matter represented by the remaining units.

The paragraphs quoted indicate that enlightened consideration of the practical problems of educational organization is rapidly taking the place of the old-time attitude of opposition, which frequently found expression in violent criticisms of high schools by college officers and of college-admission requirements by school administrators.

A few years ago the Department of Superintendence of the National Education Association listened to an address in which the speaker attempted to renew the controversies of an age that is past. It is highly desirable that all who are interested in education adopt the method of Committee G of the American Association of University Professors, that is, the method of full systematic discussion, in order that the ways of wisdom and expediency may be clearly marked out.

"THE UNITED STATES DAILY"

A new daily newspaper, entitled, the *United States Daily*, published in Washington, D.C., promises to be very useful to teachers who conduct classes in civics. It contains accounts of the official acts of all the branches of the government and also gives from time to time valuable summaries of the functions of these branches. The President of the United States recently went so far as to commend in an autograph letter the tables and summaries which the paper has been presenting of the organization of the federal departments.

The Department of the Interior is perhaps of more direct interest to educators than any other department. A part of the statement published on October 11 describing the functions of this department is as follows:

The Secretary of the Interior is charged with the supervision of public business relating to the General Land Office, Bureau of Indian Affairs, Bureau of Pensions, Bureau of Education, Geological Survey, Bureau of Reclamation, National Park Service, Alaska Railroad, St. Elizabeth's Hospital, Howard University, Freedmen's Hospital, and Columbia Institute for the Deaf.

The territories of Alaska and Hawaii are directly represented by the Secretary of the Interior in the official family of the President, many of the various federal activities of these territories being under his supervision. The Secretary of the Interior is also a member of the Federal Power Commission and is chairman of the Federal Oil Conservation Board recently organized by the President.

The Department of the Interior was established on March 3, 1849, and has been characterized as the land, education, and home department of the national government.

Of its different bureaus, the General Land Office is the oldest, having been originally organized as a bureau of the Treasury Department. It was transferred to the Interior Department in 1849. This bureau has control of public lands, including their survey, handling applications for homesteads, desert land, and mining claims and mineral leases. It also has jurisdiction over granting right of ways over public lands and adjusting state and railroad grants.

The Bureau of Indian Affairs was originally a bureau of the War Department and also became a part of the Interior Department in 1849. This bureau acts as official guardian of the Indians, directs their education, promotes their health and industrial development, and supervises their funds and all other business activities connected with these wards of the government.

Once a bureau under the War Department, the Bureau of Pensions was transferred to the Interior Department in 1849. This bureau handles pension claims and pays pensions for all wars of the United States except the world-war.

It also administers the Civil Service Retirement Act, handling and paying annuities to retired employees of the government.

The Bureau of Education was established in 1867. Two years later it was made a bureau under the Interior Department. This bureau is charged with promotion of education in the United States. It conducts research and investigation and distributes data on all matters pertaining to education in this country and foreign countries. It also renders assistance to state and local school systems through surveys, conferences, and field service; administers a system of schools, hospitals, and industries for the natives of Alaska; and distributes federal funds for state, agricultural, and mechanical colleges.

The Bureau of Reclamation was created in 1902 for the purpose of developing agricultural possibilities of the arid and semi-arid lands of the United States. This bureau constructs and operates irrigation works, collects annual payments from water users for cost of irrigation, and promotes knowledge of irrigation methods, suitability of crops, availability of markets, and improvement of farm homes.

The National Park Service, which was established in 1916, is charged with the conservation of the natural beauties and unique characteristics of the parks and monuments under its control, promoting their use for the education, health, and recreation of the people. It also protects and restores ruins of ancient civilization and the flora and fauna of the parks.

The Alaska Railroad's construction was authorized by Congress in 1914 and completed in 1923 at a cost of \$60,000,000. This government-owned and operated railroad extends for a distance of 467 miles into the interior of Alaska, transporting passengers, freight, express, and mail.

Other branches of the Interior Department include St. Elizabeth's Hospital, which was established in 1852 for the treatment of mental diseases of the Army, Navy, and the District of Columbia; Howard University, which is an institution for the higher education of the colored youth of the nation in liberal arts and sciences, medicine, law, and religion; and Freedmen's Hospital, which provides medical and surgical treatment to the colored race, its patients comprising indigent persons of the District of Columbia, residents of the several states, emergency cases, and regular pay patients.—*From an official summary issued by the Department of the Interior.*

INDIVIDUAL DIFFERENCES IN MANUAL SKILL

M. M. Proffitt, specialist in industrial education for the United States Bureau of Education, reports in a mimeographed bulletin the results of some very interesting experimental work in his field. He gave eighteen high-school pupils and three skilled workers the task of cutting a 1×6 inch pine board with a crosscut saw and observed their methods in order to discover what constitutes expert-

ness. He noted how each individual picked up the saw, how he started the cut, what kind of pressure he exerted, how he held his left hand, and so on.

Such detailed experimental analyses give large promise of improvement in technical teaching. Mr. Proffitt's work is very suggestive of a whole series of investigations which may be undertaken in analyzing skills of various types.

The tables which are a part of the report cannot be reproduced here. The major conclusions are stated by Mr. Proffitt as follows:

1. Individual differences for a given operation have a much greater range among inexperienced workers than among experienced workers. In the eleven elements noted in the operation, no two inexperienced workers agreed in all details, while the three experienced workers agreed in nine of the eleven elements, two of the three agreeing in all eleven elements.

2. Certain individuals seem to possess the ability to criticize their own efforts and to learn by mistakes to a relatively high degree as compared with others. In five cases, individuals were unable to improve over the first trial; in eleven cases some improvement occurred; and in two cases poorer results were noted.

3. In the matter of standard practice, certain reactions and results are much more significant of probable success than others. Attention is invited to the element "Position of eye relative to saw." Those individuals who held the eye directly above the saw made no variation from the perpendicular in the cut, while those who held the eye conspicuously to the left of the saw almost invariably made a slanting cut. The majority of the inexperienced individuals did the latter, resulting in an epidemic of cuts which slanted to the right from top to bottom. In but five instances was the slant to the left. There seems to be but little correlation, however, between the method of holding the saw in the hand and the excellence of the results obtained. Experienced individuals as well as beginners varied in this respect.

4. Some beginners possess certain practice elements in common with experienced workers to a much greater degree than do others. Attention is invited to Pupil 15 as opposed to Pupil 1 in the possession of traits which are also exhibited by the experienced workers. It seems that, on the basis of present individual differences, Pupil 15 would be a much better prospect for training in the vocation than Pupil 1.

5. Physical or muscular reactions are no more important in the selection of worth-while individuals to be trained than are mental reactions. While no definite records were taken in this experiment with regard to mental reactions, there was wide variation observed among individuals. Some pupils approached the situation actively confident; some were placid; some were doubtful. While the results of the trial were being evaluated, some pupils were allured by their

successes and actively annoyed by their failures, while others were apparently well satisfied no matter how poor the results.

6. During the course of the experiment, the investigator was tremendously impressed by the fact that, as a whole, the inexperienced individuals were greatly lacking in the ability to perceive the fact that the saw was or was not in a perpendicular position in relation to the board. This could easily be due to two causes, the focusing of almost complete attention on other elements in the situation or lack of sense perception with regard to perpendicularity. As a collateral test, the investigator drew a base line on the blackboard and erected two perpendiculars, a nearly perpendicular line which had a left slant perceptible to the trained eye, a similar line with a right slant, a line with an easily perceptible left slant, and a similar line with a right slant. The pupils were called in one by one and asked to indicate which lines were perpendicular, which slanted to the left, and which slanted to the right. It is significant that Pupil 15, to whom attention has hitherto been invited, was the only individual who failed to make an error in this test. Six of the eighteen individuals were so lacking in sense perception that the results secured in the sawing operation might, in a large measure, be due to this factor.

THE ACADEMIC YEAR

The *New York Times* recently published a vigorous editorial which refers explicitly to the desirability of keeping colleges in continuous session. As the statements which are contained in this editorial hold for schools other than colleges, administrative officers in all institutions will do well to consider carefully the argument of this editorial, which is here quoted in full.

The movement of hundreds of thousands of college students to institutions that are all overtaxed to take care of them raises a question to which the summer sessions suggest a partial answer. Cannot this congestion be partly met by the all-year use of classrooms, laboratories, and libraries which now are vacant for at least a fourth of the year? Where climatic conditions are tolerable, there seems to be no reason why higher institutions of learning should not be continuously active, as are all the other serious businesses and professions of our modern civilization.

With an academic year of the same length as the calendar year, divided into quarters for seasons, the same or a larger student population might easily be accommodated, some students entering at one season and some at another, some going at one pace and some at another; the teachers also going and coming, taking their vacations as they take sabbaticals, not all at the same time. Under such a system there might be considerable intermigration of both students and teachers from one institution to another. Students would incidentally have freedom to become pupils of one master in one institution and of another

in another, as was the practice in the Middle Ages. Now they are practically forbidden such migration by the attitude of collegiate communities toward those who thus admit superiority in any respect in others or the suspicious feeling toward those who come, having left other college loyalties. In the Middle Ages young men eager for instruction, "glad to acquire learning without immuring themselves in monasteries," sought out renowned masters and went to them wherever they were, even following them from place to place.

It is gratifying to witness such an academic swarming. No one can see in this mass phenomenon anything but a good omen, even if many individuals would have greater benefit from the disciplines of the everyday world. It is only, however, when those without serious intellectual purpose dominate the mass that the gravity of numbers becomes something other than a benign promise. It is of especial interest to notice in the announcements of the leading universities this year the increasing exchange of teachers with universities in other parts of the world. If this could take place to some considerable extent among American institutions, East with West, North with South, it would be another influence in putting the teacher above the institution, in giving the supreme place to the master instead of the administrative officer or the pride of the institution.

LARGE HIGH SCHOOLS

The question of how large a high school can be and yet perform its functions properly is very pointedly raised by the following item published in the *New York Sun*.

The De Witt Clinton High School in Manhattan, for many years undisputedly the city's largest secondary institution, is now third in rank, according to the registration figures announced by Herman Wright, director of high-school organization. The register of students in each school is given as of September 22. The aggregate register of the city is 138,123 boys and girls.

The opening of the new James Monroe, Theodore Roosevelt, and George Washington High Schools in upper Manhattan and the Bronx, relieved the De Witt Clinton High School of many students, bringing its register down from the altitude of nearly ten thousand students a few years ago to 6,463 in the present report.

Two Brooklyn high schools now hold the questionable distinction of being the largest in the city—the Thomas Jefferson High School being first with 7,279 students and the New Utrecht High School second with 6,652 students.

Of the 138,123 students registered in the high schools of New York City, 24,824 entered this year. Of these 24,824 new students, 15,775 come from the elementary schools; 7,402, from the junior high schools; and 1,647, from the parochial schools. From the total of 138,123 students on the register there should be subtracted 5,098, according to Mr. Wright, in order to get the actual "live" register, leaving 133,025 students net.

SURVEY OF EXTRA-CURRICULUM ACTIVITIES IN THE HIGH SCHOOL

GERTRUDE JONES

Lincoln High School, Lincoln, Nebraska

Every well-ordered business is subjected to frequent inventories. In much the same way, the extra-curriculum activities of every high school should be examined at certain intervals to determine expedient reform, substitution, elimination, and expansion. A committee of the faculty may direct this study. The success of the survey depends on the degree of co-operation existing between the committee, the faculty, and the student body. Co-operation will result from a clear understanding of the purpose of the survey. Everyone should be convinced that the school is engaged in a genuine effort to obtain a correct picture of its existing extra-curriculum activities and that the committee wishes the constructive criticisms and suggestions of each individual in the school. The pupils will supply much of the desired information. Care should be taken not to color their reactions with the opinions of the teachers. The pupils can also assist with the clerical work involved.

At least three points should be considered. First, is the presence of each extra-curriculum activity in the school justified by one of the cardinal principles of education? Second, is the existing program well administered? Third, does it serve the majority of the pupils?

The following questions may serve as a guide in considering these three points.

What are the existing extra-curriculum activities? What was the origin of each activity? Is its purpose worth while? Does the activity accomplish its aim? What benefits do the pupils actually receive from participation?

How many pupils does the present program reach? Why did these pupils enter activities? Are the membership lists kept carefully? Is each member given opportunity to participate in the activities of the organization?

Are the pupils admitted to the activities by election or by try-out? What is the democratic method? Does each pupil know the aim, nature, and membership requirements of each of the various organizations?

Should class and club meetings be held after school, in the evening, or during the school day? Has the calendar of meetings been arranged so as to avoid conflicts? Are there rules governing attendance and participation? Are these rules enforced?

What is the nature of the meetings? Who plans the programs? By whom are they presented? Are the programs well planned and worth while, or are they left largely to chance? Is the business of the organization conducted according to parliamentary rules?

Has each organization a constitution? Do the members know its contents? Is the constitution observed?

What is the annual cost of the activity to each member? How are the funds administered? Is each treasurer responsible to a central auditing committee?

Are the offices and committee appointments distributed fairly among the members? Are the officers actually learning to assume responsibility? Are they held accountable for meeting their obligations? Are they learning co-operation?

How much time does each activity demand of its members? Of its officers? Is there a point system which limits the number of activities in which a pupil may engage? Is it carefully observed?

Do the pupils receive school credit for participation in activities? Should they receive credit?

Are there rules governing the time, place, expense, nature, chaperonage, and number of social affairs? Do the pupils deem the social affairs more important than the other activities of the organization? Are the pupils being trained in the observation of social courtesies? Are they given opportunity to devise original ways of entertaining their guests? Are the social affairs of such nature that they appeal to all the members?

Is provision made through a student council or a similar organization for pupil co-operation in the government of the school? Are representative and capable pupils elected to this body? Is the school

at large satisfied with the accomplishments of the council? Is there actual or only simulated co-operation in government?

How are the faculty sponsors chosen? Is the nature of their duties clearly understood? Are the sponsors allowed sufficient time from their classroom duties to discharge satisfactorily the responsibilities of sponsoring? Do the sponsors do too much, thus curbing the initiative of the pupils?

Is there one person or one central committee directly supervising the extra-curriculum activities in the school?

This list of questions may seem formidable, but these questions and undoubtedly others must be considered if the survey is to be complete.

A few suggestions are made for securing data. The following questionnaire was used in a study conducted recently in the Lincoln High School, Lincoln, Nebraska, by a committee of teachers appointed by the principal, J. W. French. The questionnaire was printed on the two sides of 5×8 cards.

EXTRA-CURRICULUM ACTIVITIES SURVEY

1. Are you a member of any high-school organizations? If so, of how many?
2. Do you hold offices in any of these organizations? If so, what offices?
3. About how much time a week do you give to these organizations?
4. How many meetings of your class have you attended this school year?
5. If you do not belong to any organizations for any of the following reasons, will you kindly check the one that applies in your case.
 - a) Because none of the present high-school organizations are of interest to you.
 - b) Because you have home duties or do other work after school and so are not able to attend the meetings.
 - c) Because you belong to organizations or take part in activities outside of school which use up all the time you can spare from your home and school work.
 - d) Because of the expense connected with belonging to school organizations.
 - e) If for any other reasons, would you mind stating what they are?
6. If you take an active part in organizations, etc., outside of school, will you please check any of the following in which you are now participating:
 - a) Boy Scouts
 - b) Camp Fire Girls
 - c) Sunday-school organizations
 - d) Church work
 - e) De Molay

- f) Job's Daughters
g) Private lessons, such as music and art
h) If any others, please name them.
7. If the present high-school organizations do not appeal to you, can you make any constructive suggestions as to additional organizations that might interest you and other students?
8. Would you belong to such organizations as you suggest if they were started in the school?
9. Have you any criticisms of the present organizations or suggestions for their improvement? If so, please state them.
- Sign your name if you are perfectly willing to _____
Please state what class you belong to _____
Number of years in L. H. S., including this _____
School previously attended _____

It was found that the members of seven organizations—the band, two orchestras, three glee clubs, and the debate squad—receive some credit toward graduation. In addition to the four class organizations, there are seventeen clubs—All Girls League Council, an auxiliary of the Student Council; Art Club; Chemistry Club; Commercial Club; Forum; Freshman Club of Girl Reserves; Girls Athletic Association; Hi-Y; Household Arts Club; L Club, composed of school-letter men; Mummers; Orpheons, Round Table, a club of normal-training girls; Student Club, sponsored by the city Y.W.C.A.; Student Council; Writers Club; and Zoölogy Club. Many of these organizations were started in 1916-17 when the fraternities and exclusive social societies were disbanded.

The athletic department provides interschool games, intramural contests, and an extensive after-school sport program. There are two publications: the *Advocate*, a weekly paper, and the *Links*, an annual. The pupils have opportunity to appear in public in one-act plays; assembly programs; interschool and interclass debates; concerts; musical contests; the senior, junior, and Mummers plays; the opera; and Joy Night, an all-school night of fun.

A list of the active members of each club was obtained from its secretary. From these lists, a senior boy worked out the following data. The total number of members in twenty-four organizations during the school year 1925-26 was 1,291; 464 girls and 379 boys, or a total of 843 pupils, held the memberships. There were 2,496 pupils enrolled in the school; 560 belonged to one club; 184, to two

clubs; 59, to three clubs; 25, to four clubs; 6, to five clubs; 7, to six clubs; and 2, to seven clubs. The clubs ranged in size from 10 to 186 members. These figures show that about one-third of the pupils enrolled were members of clubs. Is this percentage too small or too large? This question can be answered best after a study of the reasons given by the other two-thirds of the pupils for not joining clubs.

It was found that, of those not belonging to clubs, 24.4 per cent were not interested in the present organizations; 45.5 per cent had home duties or did work after school which prevented their attending the meetings; 20.6 per cent belonged to organizations or took part in activities outside of school which used up all their spare time; 3.5 per cent had not joined any clubs because of the expense connected with belonging to organizations;¹ 5.9 per cent gave other reasons.

Sixty-four clubs of various kinds were suggested under Question 7. Perhaps the organization of some of these clubs would attract a part of the 24.4 per cent of the pupils not belonging to clubs on account of lack of interest. The success of a club demands the active co-operation of all its members. Members who lack interest and time and who have joined merely for the sake of "belonging" contribute little to an organization. Perhaps the 45.5 per cent who had not joined clubs for want of time exercised good judgment. Many pupils who do not belong to clubs participate in other activities. However, if a satisfactory plan could be developed whereby clubs would meet during the school day and credit would be given for active membership, the slogan, "a club for every worth-while interest and every pupil a member of some club," might not be far wrong, especially in view of the valuable training received by the members of a well-organized club with definite aims.

The following questionnaire, furnished by E. K. Fretwell of Teachers College, Columbia University, was used to obtain certain information regarding the activities of the clubs and classes.

The following questionnaire is to be filled out by the president of every organization.

1. Name of organization _____
2. When organized? How long do officers hold office?

¹ The class and club dues range from five cents to twenty-five cents a semester, and the cost of parties is limited to twenty-five cents per person attending.

3. Number of members: Boys _____ Girls _____ Total _____
4. Requirements for membership: _____

5. What does this organization do?

a) _____
b) _____
c) _____

6. How often are meetings held? Day of week? Hour?

7. A typical program was carried out on _____
(Give date)
It consisted of the following: _____

8. The strong features of this organization are: _____

(Signed) _____
(Name) _____ (Title of office held in organization)

Besides eliciting the following information, this questionnaire caused the presidents to give some thought to the activities and the value of the organizations which they served.

Membership in certain of the clubs in the Lincoln High School is gained by successful tryout before an impartial committee. Membership in class organizations and in departmental clubs is determined by a stated number of credit hours or by a specific mark. Entrance by tryout seems to be the fairest and the most democratic method; furthermore, it limits the membership to those actually interested in the work of the club. On the other hand, one pupil made the following cogent criticism: "Tryouts for some of the organizations are hard and allow only the very best to enter, while poorer ones might learn a great deal by being members." One way of meeting this situation is to make the tryouts less difficult. Another way is to organize a preliminary training club through which pupils may be promoted to a more advanced club.

The Student Council, the members of which are elected by the school at large, meets weekly. The council promotes school projects, attempts to control hall order, manages locker-guard duty, extends courtesy to visiting teams in all departments, sponsors matinée parties, edits the *Red and Black*, and checks on the point system. In 1926 it managed the Joy Night program.

The All Girls League Council, which meets during the home-

room period at the call of the president, deals with problems which have to do wholly with the girls of the school. Its members, who are elected from the three upper classes by the girl members of the Student Council, act as big sisters to the new girls, care for the halls during the first lunch period, give two assemblies and two parties a year for all the girls in the school, manage the lost-and-found department, make collections for charity, and decorate the stage for certain assemblies.

The activities of the class organizations, which meet monthly, include the fostering of school spirit; the presenting of programs in assembly; one party a semester; plays in the junior and senior years; special projects, such as a hobby show; the junior-senior reception; senior color day; senior class day; and the Olympics, staged each year by the junior and senior classes. The junior class decorates the auditorium for the graduation exercises each semester. Importance should be attached to the activities of the class organizations. As stated by one class president, "Since you are born into a class, some pupils have an opportunity to serve on committees and take part in plays who would never have a chance in any other organization."

The majority of the clubs in the Lincoln High School meet every two weeks at the close of the school day. The faculty committee on student affairs permits two clubs to meet in the evening for the benefit of those pupils who are employed after school. Some of the aims and activities listed by the presidents of the clubs are as follows: the study of the subject of primary interest to the club by means of outside speakers and programs prepared by the members, exhibits of the members' work, the promotion of fellowship and friendship, training in leadership, opportunity for individual expression, the acquisition of poise and skill, to help with school projects, service to others, assembly programs, and occasional social affairs. All parties sponsored by the school must be held in the school building, and their management is governed by rules which were formulated by a pupil and faculty committee.

The following questionnaire, which was printed on 3×5 cards, was prepared by Paul N. Campbell to obtain the reactions of the members of the clubs.

Name _____ Class _____ Club _____

1. When did you join this club? Your age then?
2. Why did you join?
3. Do you attend regularly or only occasionally?
4. What benefits and pleasures do you receive from membership in this club? Please answer fully. Use reverse side if necessary.
5. What do you suggest to make the club more worth while?
6. Name below the other clubs in the Lincoln High School of which you are a member.

Twelve hundred and twelve of these cards were examined by the committee. The answers shown in Table I were made to the question, "Why did you join?" One girl, a member of several clubs, joined the Mummers because she wanted to be an actress at some time in her life. She was attracted to the Orpheons because she hoped to make music her vocation. Her desire to become a writer prompted her to become a member of the Writers Club. In commenting on the Student Club, she said, "I feel that when I go to the meetings I come away with a better feeling of good will. But it is so seldom I can attend that I just pay my twenty-five cents and let it go from my mind until it is time to have the picture in the *Links*."

Regular attendance at the meetings was reported by 60.5 per cent of the members. The remainder reported attendance occasionally or as often as possible. All the clubs have rules governing attendance. In some clubs absence from three consecutive meetings without good excuse causes a member to be dropped automatically, and he cannot be reinstated except by tryout. In replying to Question 5, several pupils urged that this rule be enforced more consistently.

In answering Question 4, one-fourth of the members said that they had acquired valuable information through their club activities. Seventeen per cent mentioned the benefit gained from the meetings; a like percentage, the making of friends and the pleasant association with pupils having interests in common; 10.9 per cent mentioned their enjoyment of the social affairs; 7.6 per cent said that they had lost their self-consciousness through appearing in programs. Other pleasures and benefits listed were increase in skill, excursions, relaxation, training in leadership and co-operation, enjoyment of the talent of other pupils, service to others, character-training, inspiration, and increase in interest in school affairs.

More than one-half of the members made no reply to Question 5; 8.5 per cent replied, "Nothing." Several suggested more meetings, more members, more regular attendance, more activities. Three ideas ran through the replies to this question. First, the members of a club should regard its work seriously, be present regularly, and take part in programs willingly. Second, the club should strive earnestly to carry out the purpose which it professes. Third, the club should map out a definite and worth-while program and then work diligently for its consummation. Social affairs seemed to be of minor importance in the minds of the members.

TABLE I
REPLIES TO QUESTION "WHY DID YOU JOIN?"

Reason	Per Cent
Interest in the work of the club	48.9
To learn more	14.7
To make friends	6.3
To get into activities	5.1
For pleasure	5.1
By invitation	3.1
Friends belonged	2.7
Was elected	1.2
For credit	1.2
Scattered replies	5.4
No reply	6.3
Total	100.0

The frank replies received to this questionnaire indicated clearly the weaker and the stronger organizations. Defects in management were revealed, and definite, constructive remedies were suggested. A copy of the replies was given to the sponsors of each activity. If the comments and the suggestions are weighed carefully and then acted upon, improvement in the work of the clubs should result.

Not only were the members of the clubs asked to criticize the organizations, but non-members were also given an opportunity to express themselves. Several pupils charged clique control and stated that offices and appointments were given to a chosen few. It was found that the 192 offices in the school were distributed among 157 pupils; 129 pupils held one office; 23, two offices; 3, three offices; and 2, four offices. Two years ago a rating system, worked out by a

pupil and faculty committee, was adopted by the school. With this system enforced, activities will necessarily be more widely distributed. The outstanding office-holder in the school was a senior boy who had been in the high school but six semesters. The following is his record: home-room representative for one year, Student Council for two years, president of the Student Council, one class office, part in concert, part in opera, part in play, business committees of one play and one opera, stage manager of play, interclass debate team, business manager of opera, *Advocate* staff, membership in nine clubs, ten club offices, and four important school committees. This case and several others point out the necessity of a scheme

TABLE II
PERCENTAGE OF SENIOR CLASS ENGAGED IN
VARIOUS ACTIVITIES

Activity	Per Cent
Athletics, including class and school teams.....	23.9
Debate, interclass or school.....	3.2
Public performances.....	33.7
Home-room representative.....	14.7
Student Council.....	4.9
Staff of one of the publications.....	12.1
Important committee.....	17.6
Office, class or club.....	23.0
Club membership.....	72.6

whereby opportunities for the development of leadership will be afforded to the maximum number of pupils.

A special study was made of the extra-curriculum activities of the members of the senior class. Replies were received from 347 pupils—141 boys and 206 girls—ranging in age from fourteen to twenty-one years. The length of time spent in the school seemed to have little effect on participation in activities. Of the three pupils who had been in the school one semester, one was not a member of any club, while each of the other two belonged to one club. Of the three ten-semester pupils, two had never joined a club and one belonged to one club. Fifty-eight Seniors, 16.7 per cent of the class, had not taken part in any extra-curriculum activities whatever. Table II shows the percentage of the class engaged in various activities.

Of the Seniors, 27.4 per cent had never joined a high-school club; 22.2 per cent had belonged to one club; 17.0 per cent to two clubs; 14.1 per cent to three clubs; 8.1 per cent to four clubs; 5.8 per cent to five clubs; 2.9 per cent to six clubs; 1.0 per cent to seven clubs; 1.2 per cent to eight clubs; and 0.3 per cent to nine clubs. This list includes all the clubs to which the Seniors had belonged while pupils in the Lincoln High School. It does not mean that one pupil was a member of nine clubs at one time.

What are the results of such a survey? First of all, the school has obtained a fair view of its extra-curriculum program. The strong and the weak features alike stand out clearly. The needed improvements, eliminations, and additions are patent. Of even more value, however, is the educational experience which was afforded the pupils in constructive methods of investigating existing social institutions. Of still greater benefit should be the process of perfecting the school's extra-curriculum program with the results of the survey as a guide.

LIBRARY SERVICE IN THE HIGH SCHOOL

EDITH L. COOK
East Technical High School, Cleveland, Ohio

Modern educational practice is reflected to a great extent in the selection and use of books in the school library. The single-textbook idea has, for the most part, been abandoned in the study of the majority of subjects now in the curriculum. The practice of making chapter assignments in many books, whether in literature, history, or kindred subjects, which used to be confined to colleges, is now generally accepted as a necessary adjunct to work in the secondary schools. The alert teacher reads extensively from the works of many specialists in his particular field and is, as a result, conversant with the best literature in that field.

The growth of this newer method of instruction has resulted in a well-defined need for an agency to administer the books necessary to carry on the instruction, and the school library has come to the fore as the most efficient means of providing such service. While it is not necessary to consider in detail the proper organization and administration of the school library, which is, however, dealt with in such publications as *School Library Management* by Martha Wilson and *Standard Library Organization and Equipment for Secondary Schools of Different Sizes*,² it seems worth while to discuss the actual operation of the library in a modern high school and the ways in which this newer educational development is reflected in the use of books placed in the school library.

Unless one is a close observer of the work actually being done day by day in the school library, one cannot imagine how closely its activities and interests are bound up with the work done by the different departments of the school. Changes in the curriculum are reflected immediately in the requests for material which are made

² The latter is the report of the Committee on Library Organization and Equipment of the National Education Association and of the North Central Association of Colleges and Secondary Schools, C. C. Certain, *chairman*. This is now out of print, but a revision is to be made.

by teachers and pupils. J. H. Finley, former commissioner of education of the state of New York, is quoted as saying, "If I had a limited time in which to visit a school, I would ask to be permitted to sit in the library for that period of time. I could find out more about the efficiency of the school than in any other way."

The most obvious need of books in the school library is in connection with courses in English and American literature, which require much collateral reading from the works of famous writers. The English courses of the East Technical High School, Cleveland, require daily use of the library either for the selection of books chosen by the pupils from accredited lists for home reading or for the study of special references which are placed temporarily on the "Reserved Table" at the request of the teacher. These special collections have included the following types of material: selections from the writings of the Romantic period, ballads, short stories, informal essays, and recent biography and travel.

Many of the pupils are foreigners or children of foreigners and have no literary background; a large number enter the school from non-public schools which still conform largely to the study of the single textbook. These pupils present a distinct problem to the English teacher and require an unusual amount of attention in order to arouse their interest and to develop the proper feeling for the heritage bequeathed to us in the form of English literature. The study of *Ivanhoe* by these pupils is certain to appeal to their interest if such collateral readings are assembled in the library as will acquaint them with the spirit of chivalry. The selection includes the following: Tappan's *When Knights Were Bold*; Davis' *Life on a Mediaeval Barony*; Quennell's *A History of Everyday Things in England*; Olcott's *Country of Sir Walter Scott*; illustrated editions of *Ivanhoe*, those illustrated by Greiffenhagen and E. Boyd Smith being especially enjoyed; and many books which contribute a chapter or two to the study of the life and customs of the period. In the vertical file are found the copy of the *Mentor* which pictures in an attractive way the life of Scott; the *Bookman* monograph on Scott, unfortunately now out of print; and the mounted post cards which show the Scott country and scenes from his novels. The miniature stage settings worked out by pupils of the art department represent a careful

study of *Ivanhoe*, faithfully portraying the characters and scenes from the book.

Such a subject as *Ivanhoe* obviously lends itself to arousing interest under these conditions, but this is not true of certain other subjects encountered in the further study of English literature. A teacher of junior boys, most of whom could manipulate the tools of the machine shop much more readily than they could deal with the English language, came to the library in despair last term. Her enthusiasm for the subject failed to arouse even a spark of interest in poetry of the Romantic age; yet she knew the boys were not dull. She knew the high ratings in electrical construction and metal work given to certain members of the class. She was determined to arouse an interest which eventually would not be forced. She began by formulating a list of selected readings with an eye to the appeal which would reach the hearts of the Italian, Scotch, and Slavic boys. The books were assembled in the library, and the following day the teacher read the titles to the class, commenting on each selection briefly and tentatively assigning to each boy a book in which he was to begin his reading. The next two days the boys spent their English periods reading in the library. The teacher was present and helped the boys to locate their assignments. There was no further comment. The boys read quietly and exchanged their books from time to time, and their assumed interest became real. The subsequent class discussion was virtually taken out of the teacher's hands as the pupils voluntarily reported on their selections. The transition to the Victorian period the following week found the class actually eager to read a Victorian novel, and the oral reports on their reading became so long that a time limit had to be set.

The same teacher noted excellent results on a later occasion when two of her classes spent one period each in reading magazines in the library. The magazines available in the library had been briefly characterized in class, and each pupil had made his selection in advance. The preferences were for the *American Builder*, the *Architectural Record*, the *Scientific American*, *Radio News*, and other technical magazines, but a number of excellent reports were received from those whose selections included the *Independent*, the *Outlook*, and the *World's Work*. The attention of the pupils was directed to

the format of a magazine, the relative importance of the space given to advertising, the character of the editorials, and the appeal made to the reader by the special articles. The increased use of the library magazines by the older boys is no doubt due in no small way to this instruction, and at least one boy has been reading regularly an advanced educational journal since that time.

Recently a teacher of over-age boys in Grade IX B whose home-reading reports threatened to be very poor and perfunctorily given decided to forestall lack of interest by showing the boys copies of standard works in illustrated editions. She made a selection from the special case, and the boys spent a class period in the library, each reading the book he had chosen. These editions are usually kept for room use, but these boys were allowed to draw them out for home reading. At first, the boys were diffident about taking home such large volumes as these well-illustrated editions usually are, but the teacher reported that each read a book. Incidentally, she said that the boys brought the books to class each day, although they knew that reports would not be due for several weeks.

The school librarian alone realizes how well defined is the need for assistance in departments other than the English department. The head of the chemistry department recently assigned to more than one hundred tenth-grade boys the subject, "The Manufacture of Auto Tires and Hard Rubber." He reported later that he received excellent class reports and that one small group of nine or ten remained after school for an informal discussion of the subject. He then reserved material about the manufacture of matches, insecticides, type metal and other alloys, and automatic fire extinguishers. The boys later learned about paints, flint glass, and lead shot.

From time to time a class in applied art comes to the library to sketch for a double period, using material found in books and in the vertical file in developing conventional designs from such subjects as chimneys, trees, and human faces. The last of the subjects just mentioned appear in final form as masks which symbolize comedy and tragedy. Classes in home management make daily use of the library in assignments from Balderston's *Housewifery*; the *Manual of Home-making*, compiled by Van Rensselaer, Rose, and Canon;

Child's *The Efficient Kitchen*; the *Department Store Merchandise Manuals*; and similar books. At stated intervals history classes make use of a group of art books, such as Caffin's *How to Study Pictures*, Innes' "Schools of Painting," Whitcomb's "Young People's Story of Art," the *Masters in Art* series, and beautifully illustrated monographs which are now published inexpensively. The mounted pictures of the enlarged Perry, Cosmos, and University Print type are borrowed for classroom use as the particular school of art comes up for discussion.

A very practical interest is involved in the use of material on house plans in the architectural course required of all second-year boys. This subject seems to make a very wide appeal and offers a wonderful opportunity to these boys to learn to design homes with a view to their usefulness and an eye to their appearance. Many of these pupils have later assisted in designing and constructing real homes. For this purpose, the boys have adapted details from the usual books on building, but the majority prefer current architectural magazines, pamphlets from commercial concerns, and separate designs which have been clipped from folders and placed in the vertical file.

Every day brings an influx of special requests. A boy in greasy overalls may stop in to get some data on automobile repair. A group of boys with rolled shirt-sleeves from the class in sign-painting who are making posters for a school party may search the vertical file for witches and pumpkins, which they find in the Dennison and other booklets. The teacher of electrical construction may come in with a boy to locate specific data on magnets. A member of the class in optical projection, known as the "movie" operators, may come in for Richardson's *Handbook of Projection for Theatre Managers and Motion Picture Projectionists*. This is one of a group of books used daily by the serious-minded pupils who are chosen for this special class because of proficiency in physics. Other materials similarly used are the books by Gage, Johnson, and Cameron and several sets of pamphlets, such as those issued by the National Lamp Works.

The individual requests vary from day to day, and new subjects are continually added to a long list with which the librarian has become familiar in a service of more than ten years. The following list,

selected from a day in March, 1926, indicates the variety of requests received: roasting metals, a design of a Chinese flower to appliquéd on a hat ornament, recent data on prohibition, cost of military training to the government, history of the Pilgrims, aluminum, iron and steel industry, poems of Keats, topics of the day to feature in an article for the school paper, Ohio State Legislature, history of ballads, Cleveland water supply, machine design, city officials of Cleveland and their salaries, microscope design, working drawing of a blast furnace, life of Daniel Webster, life of Andrew Jackson (six simultaneous requests), life of James Whitcomb Riley, testing of resistance of wire for electrical purposes, microcosmic salt, tariff of abominations, picture of a castle, and sketches of the lives of Mark Twain and O. Henry.

The number of inquiries answered by information supplied by the library cannot be given even approximately for any one day. Such requests as reach the librarian or her assistants usually are only for the data which the pupil cannot find himself. Every pupil entering the school is taught how to use the library intelligently during his first term, and the "library-instruction course," as it is called, is a definite part of the English course for which the pupil receives credit. This instruction is given by the teacher and the librarian working together. Pupils receive instruction sheets and learn the abridged classification. They are taught the essentials regarding the use of the card catalogue, the vertical file, the dictionary, the encyclopedia, and simple reference books, including the periodical indexes. They spend part of two class periods working on problems which involve the use of these library tools. In fact, this instruction is considered the best means of reaching the individual pupil in a school enrolling almost three thousand pupils and of impressing him with the fact that the library is equipped to furnish data on every kind of subject in which a boy or girl of high-school age may be interested either for class work or for personal reasons. He can see for himself, from the attitude of the librarian and her assistants and of the pupils whom he sees moving about the library or quietly reading, that the material is for his use as well as for the use of the other pupils and that no grudging answer will follow any request he may make.

The book collection of about eight thousand volumes includes a

well-assorted selection of the best titles of all kinds, with particular attention to literature, history, the sciences, and the arts. There are also some sets of thirty copies each for the English and the science classes. There is a daily delivery from the main library, which supplies for short loans books wanted for special calls or for the personal use of teachers. In addition, the public library has supplied more than two thousand volumes on long loans, which may be returned when there is no longer a demand for them. In fact, the public library, of which the school library is a branch, supplies funds regularly for adding a limited number of new books on every subject of interest to the school. These books remain permanently at the school and at the present time number about twenty-five hundred.

About fifty titles comprise the magazine list, which, in addition to the magazines previously mentioned in this article, includes the *American Magazine of Art*, *Nation's Business*, the *Survey*, the *Foundry*, *Good Furniture*, *Current History*, the *Golden Book*, and the *American Review of Reviews*. The *New York Times* and a local daily paper furnish current information, which is clipped if it promises to have future use. In fact, the vertical-file material occupying most of a sixteen-drawer legal-size cabinet has come to be a very necessary supplement to the book collection. The material is arranged alphabetically, by subject, in large folders or, if in pamphlet form, back of a large guide card. Each drawer is lettered, and a typewritten list, mounted on heavy cardboard, is kept on top of the file, plainly marked, "For the use of teachers and pupils." As mentioned before, each pupil is instructed in the use of this material. More than five hundred subjects are listed, and many cross-references are noted to avoid difficulty in locating a special pamphlet or clipping.

In obtaining material for this file, the library can often secure gratis or for a minimum charge valuable leaflets, pamphlets, or circulars which save the price of a book and often answer the same purpose. Such a publication as *Facts and Figures of the Automobile Industry* often furnishes data more recent than the data to be found in books. Occasionally, lists of free material are published in magazines. For example, the *High School Teacher* (Ohio) published in March, 1926, a list of "Free Pamphlets of Value to Science," compiled by Clarence E. Baer, of New Castle, Pennsylvania. Debatable

subjects, such as child labor, minimum wage, city-manager form of government, and prohibition, actually require such file material. Some of the subjects listed in the file index might furnish amusement to the skeptical; we get intermittent calls for the material in the folders labeled, "Cartoons," "Circus," "Cork," "Finger prints," "Gipsies," "Indians," "Jokes," "Knots," "Ku Klux Klan," "Magic," "Rats" (extermination), "Smoking," "Sponges," "Success," and "Weather." Out-of-date material is weeded out annually, and at intervals recent pamphlets, clippings, or magazine sections are inserted. The magazine sections are stapled in the print shop and furnish some of the most usable material, made available when the current use of the magazine as a whole is ended and the magazine is not to be bound, each section being chosen because it discusses a special subject at length. One can readily guess that the file gets out of order and needs to be looked over frequently for folders misfiled, but its continual use by the pupils makes this extra work seem a minor matter, far outweighed by its intensive use for a multitude of subjects.

In fact, the part played by the school library is very closely in line with the work of the school as a whole. In every form of educational development today we are urged to take cognizance of the fact that the boy and the girl must be taught to live and to become useful citizens—leaders, it may be, of that great mass of unschooled population outside the school walls. The tendency is to develop latent talent rather than to create a forced interest. By supplementing the formal discussion of the classroom with information to be found in the endless variety of books and pamphlets supplied during the hours when the pupil is in school and in a receptive mood, the library prepares the pupil to give full play to his talents and to develop his initiative, whether it be in commercial activities, in industrial interests, or in simple home pursuits. The school library may thus help to bring about this development of individuality so that the pupil will leave school equipped to enter a life of usefulness and better able to fit into the scheme of things.

As a matter of fact, also, the atmosphere of a modern high-school library reacts on the pupil not only in his need or desire for information in connection with his class work but in his choice of reading

matter for spare time. Indeed, the subject of recreational reading should be given most thoughtful consideration by the high-school librarian in this age when shorter working hours afford a certain amount of leisure for everyone and questionable pleasures beckon to the old and the young alike. Books on hobbies and mechanical contrivances should, by all means, be placed in the school library by the side of wholesome entertaining stories which quicken the interest and stimulate the imagination. The boy and the girl should feel that the library's interest is not one-sided and that the library contains books suited to all the activities which engage the interest of high-school pupils.

As he grows older, the individual may forget the agencies which were conducive to his growth; the college or industrial world will possibly claim his immediate interest; the branch library will supplant the school library in his affections; but he will continue to work out his own scheme of life, and he will realize that his education will be well rounded when he avails himself of information gathered from the experience of all ages and expressed in the form of books.

OUR BEST TEACHERS

C. O. DAVIS
University of Michigan

Recently the writer requested the students enrolled in two of his education classes in the University of Michigan to give their judgments concerning the elements that tend to make a teacher a real success as a teacher and to indicate also the relative merits of the teachers under whom they studied in elementary school, high school, and college. The classes consisted of seventy-six students, about equally divided between those of junior standing and those of senior standing. Some of the students had had one or two courses in education previous to the given semester; some were carrying their first work in education; a very few had had a year or two of teaching experience. No discussion was held of the questions given out; no warning had been given that such a piece of work would be requested; and no names were signed to the papers handed in.

The first request read: "List the elements that, to you, make a teacher really successful; that is, what teacher traits helped to make the best course (or courses) you ever pursued valuable to you?" Table I lists the replies in the order of frequency. The list is perhaps not unique. It does, however, show how college students, looking forward to teaching, tend to select the same qualities that teachers of experience and administrators generally mention when discussing the subject. It would appear, therefore, that one of the chief tasks of educators is to make prospective teachers conscious of the ideas which they subconsciously possess and to give practice in putting these ideas into operation.

Question 2 read: "All things considered, have you had your finest teachers in the elementary school, the high school, or the college or university?" The replies to this question are as follows:

	Number of Students
Elementary school	9
High school.....	34
College or university.....	27
Not replying	6

Question 3 was the counterpart of Question 2 and read: "All things considered, have you had your poorest teacher (or teachers)

TABLE I

Trait	Frequency of Mention
1. Personal interest in pupils, that is, sympathy and friendliness	76
2. Teaching ability, that is, ability to present the subject interestingly and to inspire and stimulate.....	58
3. Personality.....	48
4. Genuine interest and enthusiasm for teaching and for the subject taught.....	43
5. Neat and attractive in appearance.....	41
6. Masterful knowledge of the subject taught.....	36
7. General knowledge or general culture.....	34
8. Knowledge of pupils.....	23
9. Sociable, human, and friendly.....	23
10. Power to discipline.....	18
11. Cheerful and even tempered.....	16
12. Faith and confidence in pupils.....	15
13. Keen sense of humor.....	15
14. Willingness to help pupils and to co-operate.....	15
15. Fair but exacting in work assigned.....	14
16. A pleasing voice.....	13
17. Commanding the respect of pupils.....	13
18. Systematic in preparation of the day's work.....	11
19. Vigor and health.....	9
20. Force, earnestness, self-confidence.....	9
21. Tactfulness.....	7
22. Ambitious to grow in service.....	7
23. Patience.....	6
24. Sincerity.....	6
25. Pleasing in manners.....	6
26. Participation in student activities.....	6
27. Resourcefulness.....	5
28. Capacity for hard work.....	3
29. Poise and dignity.....	3
30. Idealism.....	2
31. Ability to speak in public.....	2
32. Interest in the town.....	2
33. Trained.....	1
34. Traveled.....	1
35. Possessed of common sense.....	1

in the elementary school, the high school, or the college or university?" The replies are as follows:

	Number of Students
Elementary school.....	38
High school.....	17
College or university.....	10
Not replying or equivocal.....	11

The answers to Questions 2 and 3 will doubtless surprise many readers. Platform speakers often vehemently declare that the best teaching to be found in America is in the elementary schools and that the poorest teaching is to be found in the colleges and universities. If accepted, the figures here would utterly refute these statements. According to the returns, the elementary school has both the smallest number of the "finest" teachers and the largest number of the "poorest" teachers. On the other hand, the high school is regarded as having the "best" teachers but is declared by half as many students as providing the "poorest" teachers. The college or university ranks at the bottom in poor teaching and midway between the high school and the elementary school in superior teaching.

No doubt, the vote as recorded can be explained in such a manner as to make a better showing for each type of school. In the first place, the students reporting in this study were fully six years away from the eighth grade. It is not at all unreasonable to think that many of the judgments were colored by that fact. Again, the high-school age is an age of vivid impressions. Undoubtedly, strong likes and dislikes were then formed, and these persisted, possibly without true reasons therefor. Furthermore, as the questions were worded, the students were asked to compare the work of eight years (elementary school) with the work of four years (high school) and with the work of two or three years (college up to the middle of the junior or senior year). Moreover, as one student said, "The work is of such a different nature that it is hard to say where the best teachers are. Each type of school has some good and some poor ones."

Question 4 read: "All things considered, were the teachers you had in your senior year in high school better or worse than the teach-

ers you had in your freshman year in college?" The replies are as follows:

	Number of Students
Better in senior year of high school.....	45
Not so good in senior year of high school.....	26
Equivocal answers.....	5

Probably these figures bear out the general opinion that students usually feel that the teachers they had while Seniors in the high school are superior, as teachers, to the teachers they had in the freshman year of college. Many explanations are given for this feeling. The following quotations will illustrate the pros and cons.

I think that the high-school teachers seemed better to me because they were able to know the pupils in a more personal way. When you get to your freshman year in college, you are thrown into a sort of whirl. The process is so much larger, so much more comprehensive, that it lacks vital interest. It reminded me of Henry Ford—just production with no human interest.

The reason why I think that the high-school teachers were better is probably because the change from the high school to the university was so different that the new teachers did not seem to carry on the work where the high school left off but took a big jump.

The high-school teachers were able to stimulate me more both in working out class assignments and in relating the work to my own experiences.

The writer was fortunate enough to have teachers of long experience when he was a Senior in the high school, but the instructors in the first year of college were much younger in experience.

The high-school teachers knew me and knew how to bring out my best qualities. Instructors for Freshmen rarely, I believe, have student welfare at heart. You are here on your own responsibility and can either make a "go" or not, just as you choose.

University professors do not attempt to teach but merely to instruct; that is, the work is left more to the students to dig out for themselves what is essential for them to know. Besides, a great many of the instructors have too much interest in the research work which they are doing.

In high school, classes were not a bore, as were some of my classes the first year in the university.

In a high school the better teachers usually teach the higher grades. In the university the introductory courses are often taught by the less experienced and least interested instructors.

Most of my college teachers thus far have seemed so wrapped up in their researches that upon entering the classroom they looked so tired and seemed not

to care whether the class could hear them or not—as though we, as students, were an abomination.

The teachers in the high school I attended were poorer than those in college because they lacked an honest interest in their work. Students and teachers had nothing in common.

I attended a small college after leaving high school. Special efforts had been made to secure the best teachers possible. They were well prepared to teach.

I think that the teachers in my first year in the university were better because they were all men who are famous and outstanding in the subjects they teach.

My freshman-year teachers were more interesting, gave us the necessary drills which I had been wanting to have, and, besides all, at the end of the year, I felt I had learned something.

I found my teachers in the first year of college to possess a far greater knowledge and understanding than my teachers in the senior year of the high school.

My first year in college (a small college) I had teachers who had been teaching for a great many years. They taught me new things and helped me to understand certain aspects of life that had never been clear before. In high school the teachers were, for the most part, getting their experience from us for the first time and had not fully learned to present their subjects.

Teachers in the high school were too lenient in my senior year. We accomplished very little, especially the last semester.

Finally, in order to find out whether students feel that instruction progressively improves as they go through college, the question was asked, "All things considered, do you think that the teachers you had last semester (as Juniors or Seniors) were better or not so good as the teachers you had in your freshman year in college?" The replies were as follows:

	Number of Students
Better last semester.....	51
Better the freshman year.....	9
No difference.....	10
No answer.....	6

In explaining their answers to this question, many students gave reasons similar to those given in the case of Question 4: "They were of far greater experience." "I have become accustomed to university methods." "Classes are smaller." "I was able freely to choose my subjects last semester, and hence they were more appealing to me."

"The presentation was better." "Human professors." "Professors not so didactic." "We are getting to realize each day just what life really is." "The older professors give outlines of the course, and the students know definitely what sort of things to emphasize and study." "This year I have the privilege of picking my instructors, whereas, as a Freshman, I took what was given. The work is more interesting now."

One or two longer statements may be presented:

My instructors on the whole (I have to omit one here as he was about the worst I have had since starting school) were better than my instructors my freshman year. This was due to the fact that I chose the teacher and chose his subject. In other words, if I like a teacher's methods of teaching, I, as a rule, pick the subject in which he is most interested, as he is certain to do it justice.

Impossible to differentiate. The subjects I took my first year of college were entirely different from this year. Some were harder; some easier. I think each professor was just as good in his line of teaching. Perhaps, too, I was lucky in the professors I had.

It seems to me that the instructors I had the last semester showed themselves more as real men dealing with real men and women. We seemed, in a way, to get outside the classroom into real life.

The more advanced courses are given by experts. The work, however, with one notable exception, was still given in a completely impersonal manner, but at least the subject was covered convincingly.

Last semester, professors knew their subjects and, with one exception, put them across. I liked, too, their personalities better.

Perhaps the answers to the five questions merely furnish further evidence that good teaching, like poor teaching, is found all along the line of education. The fundamental element is personal. If an individual has a genuine love for his work, a real interest in his students, a knack for stimulating and inspiring his hearers, a winning personality, a fair command of the subject he is to teach, and general culture, he seems assured of success. Other traits are, of course, desirable, and training will foster the development of these, but the first need in teaching is human interest and a magnanimous spirit.

THE JUNIOR COLLEGE AS VIEWED BY ITS STUDENTS

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At its meeting in 1925 the Kansas Association of Junior Colleges authorized the writer and the faculty of the Junior College of Kansas City to make an inquiry into the character and attitudes of the student population of the junior colleges of Kansas. A questionnaire of thirty-four questions was prepared and sent to all the students in the eight public junior colleges of the state. The results secured are here reported.

TABLE I
NUMBER OF STUDENTS IN EACH JUNIOR COLLEGE WHO REPLIED
TO QUESTIONNAIRE

Junior College	Male	Female	Total
Arkansas City.....	33	44	77
Coffeyville.....	22	24	46
Fort Scott.....	35	47	82
Garden City.....	14	28	42
Iola.....	22	26	48
Kansas City.....	59	47	106
Parsons.....	26	33	59
Sumner (Kansas City, colored).....	3	6	9
Total.....	214	255	469

The junior colleges included in the inquiry and the number of replies to the questionnaire received from each are shown in Table I.

The ages of the students replying ranged from sixteen to thirty-seven. The ages most commonly reported and the number reporting each are as follows: 18 years, 100 students; 19 years, 160 students; 20 years, 90 students; 21 years, 53 students.

Table II reports the classification of those replying. One hundred and eighteen of the Sophomores expected to graduate, and sixty-

seven expected to continue their work the following year in some institution beyond the junior college. Of the Freshmen, 213 ex-

TABLE II
CLASSIFICATION OF STUDENTS

	Male	Female	Total
Sophomores	68	93	161
Freshmen	145	160	305
Special students	1	2	3
Total	214	255	469

pected to go on with sophomore work, while 57 had decided not to do so; the remainder were uncertain with regard to their plans.

Table III shows the vocational plans of 297 students. Of those who had no definite plans as to vocation, forty-nine boys and eighty-

TABLE III
VOCATIONAL CHOICES OF 297 STUDENTS

Vocation	Male	Female	Total
Teaching	8	134	142
Business	26	3	29
Medicine	25	1	26
Engineering	25	0	25
Law	20	1	21
Music	2	14	16
Art	3	4	7
Athletic work	4	1	5
Pharmacy	4	1	5
Chemistry	4	1	5
Ministry and missionary work	1	3	4
Farming	3	0	3
Architecture	2	0	2
Nursing	0	2	2
Dramatics	1	1	2
Geology	1	0	1
Mining	1	0	1
Y.M.C.A. work	1	0	1
Total	131	166	297

two girls would admit no preferences. The other students with no definite plans favored teaching, business, engineering, journalism, and law. Other vocations mentioned are office work, medicine, chemistry, music, home, architecture, agriculture, nursing, pharma-

cy, library work, art, coaching, missionary work, dramatics, zoölogy, writing, and keeping a baby shop.

Tables IV and V indicate the reasons why the students were attending the junior colleges and the probability that they would have

TABLE IV
REASONS FOR ATTENDING JUNIOR COLLEGE

Reason	Male	Female	Total
To save money.....	81	91	172
To better self.....	53	68	121
Wanted at home.....	32	46	78
To continue education.....	26	27	53
To get a teacher's certificate.....	1	19	20
To prepare for college.....	8	7	15
To back a community project.....	2	12	14
To obtain more individual attention.....	8	6	14
Inconvenient to go elsewhere.....	9	4	13
Small college better.....	4	4	8
Too young to work or to go away.....	1	5	6
Part-time employment.....	3	1	4
To keep from loafing.....	3	3
To prepare for teaching.....	2	2
Uncertain.....	1	1
No answer.....	7	9	16
Total.....	241	299	540

TABLE V
DISTRIBUTION OF THE REPLIES TO THE QUESTION, "IF THERE WERE NO JUNIOR COLLEGE HERE, WOULD YOU BE IN SCHOOL?"

Reply	Male	Female	Total
Yes.....	112	110	222
No.....	74	100	174
Maybe.....	11	10	21
Indefinite.....	11	5	16
Not this year.....	2	5	7
Don't know.....	4	1	5
No answer.....	0	24	24
Total.....	214	255	469

gone to colleges elsewhere if the public junior colleges had not supplied opportunities for higher education.

Tables VI and VII indicate the judgments of the students with regard to the comparative advantages of junior colleges and four-year colleges and the special advantages of the local institutions.

The various tables present a part of the results secured from the questionnaire. Much of the material collected must be omitted because of lack of space. The following comments supplement in

TABLE VI

DISTRIBUTION OF THE REPLIES TO THE QUESTION, "ARE THERE DISADVANTAGES IN NOT ATTENDING A FOUR-YEAR COLLEGE?"

Reply	Male	Female	Total
Yes.....	54	52	106
No.....	136	173	309
Yes and no.....		3	3
Some.....	9	8	17
Can't tell.....		1	1
No answer.....	15	18	33
Total.....	214	255	469

TABLE VII

DISTRIBUTION OF THE REPLIES TO THE QUESTION, "DOES THE JUNIOR COLLEGE IN YOUR COMMUNITY PROVIDE YOUR ONLY OPPORTUNITY FOR A COLLEGE EDUCATION?"

Reply	Male	Female	Total
Yes.....	42	80	122
No.....	46	145	191
Probably.....	12	13	25
Don't know.....	3	3	6
No answer.....	111	14	125
Total.....	214	255	469

part the facts reported and, to some extent, serve to interpret the tables.

GENERAL STATEMENTS

The proportion of boys and girls is approximately the same in junior college as in high school. The classification of the student body shows the youth of the junior-college movement; there were almost twice as many Freshmen as there were Sophomores. It is encouraging to note also that most of the students were classified, not merely pursuing "special work."

Of the Sophomores, a large number expected to graduate; approximately 25 per cent did not expect to graduate. More than 40 per cent expected to do work the next year in some college or uni-

versity. In recording plans for the next year, the students mentioned nineteen different colleges, the greater number being Kansas colleges with the University of Kansas leading.

The great majority of the Freshmen expected to continue in the junior college. Only fifty-seven said that they would not return the next year, although some were uncertain. Of those who did not expect to continue where they were, seventy-six named sixteen institutions they might attend, mentioned work that they might do, or expressed uncertainty.

The courses preferred show that general liberal arts were most popular, normal courses being second; engineering, medicine, law, and fine arts follow in order. The other courses named have only a few students listed under each.

Practically all the junior-college students were high-school graduates. The previous year they had attended sixty-eight different schools, widely distributed.

The number of college hours of work carried by the students ranges from three to twenty. The large majority of students carried from twelve to eighteen hours of work.

A large number of students (154) were regularly employed for part time. A larger number (279), however, were devoting full time to college work. The number employed compares favorably with the number who would not have attended college if facilities had not been offered at home. Most of the students had no unusual home duties; a goodly number (65) had.

Participation in college activities was general, two-thirds of the students being identified with some form of extra-curriculum activities. Athletics heads the list, with music, dramatics, clubs, debate, and paper or annual following in the order of importance. The students held that extra-curriculum activities do not hinder school work and voted overwhelmingly that they should be encouraged.

The subjects actually studied by the students in the two semesters of the school year 1924-25 show that the offerings of the junior colleges included forty-six courses in the first semester and thirty-five in the second semester. English heads the list for the first semester, with algebra, history, expression, psychology, and chemistry following.

CONCLUSIONS

- The study seems to warrant the following conclusions.
1. The students were a group of earnest young people, almost equally divided as to sex, who expected to pursue a two-year junior-college course and graduate.
 2. The junior college is finding a definite place as a two-year institution, as evidenced by the fact that about one-half of those graduating did not plan to go to a university or to a four-year college.
 3. On the whole, the students seemed satisfied and had no intention of leaving their junior colleges for other institutions.
 4. Most of the students were pursuing very definite courses, looking forward to future study or vocations.
 5. Vocations were definitely determined in approximately 65 per cent of the cases, and those who had not decided on their vocations expressed preferences similar to the choices made by those who had selected their vocations.
 6. The overwhelming majority of the students were high-school graduates, and practically all were in school the previous year.
 7. The students were drawn from a large number of different schools, including forty-five different high schools and twenty-three colleges, military schools, etc.
 8. Junior-college students have definite reasons for preferring to attend a junior college.
 9. A large number of young people would never have an opportunity to secure a college education were it not for the public junior colleges.
 10. Junior-college students take their work seriously, as evidenced by the number of courses they carry and the amount of study they consider necessary.
 11. College activities were considered important by practically all the students and in their opinion should be definitely encouraged.
 12. The advantages of attending a junior college far outweigh any disadvantages.
 13. The curriculum offerings of the Kansas junior colleges indicate a definite adherence to the more fundamental freshman and sophomore courses with small attention on the part of the students to the so-called "frills" of the curriculum.

14. Finally, the study tends to show that the public junior colleges in Kansas have become a definite part of the public-school system and are coming to be viewed as such by students, faculty, administrators, and the public.

The significance of some of the conclusions is apparent when certain historical facts are added to the foregoing findings. The state legalized public junior colleges in 1917 when the legislature passed a law permitting "high-school extension" courses. The law reads as follows:

The board of education of any city of the first or second class may provide for an extension of the high-school course of study by establishing for high-school graduates a two-year course in advance of the course prescribed for accredited high schools by the state board of education.

Provided that at a general election or at a special election called for the purpose, in the manner provided by law, a majority of the electors voting on the proposition shall favor such an extension of the high-school course of study.²

The University of Kansas has been most enthusiastic in its support of the public junior college. Other state and private institutions, while not enthusiastic, are very cordially disposed.

Possibly the most significant action of the Kansas Association of Junior Colleges was the attempt to secure legislation providing for state aid to public junior colleges. The following proposed act failed by a very small margin last year.

SECTION 1. Any public high school in any city of the first class or second class or any community high school in the state of Kansas which shall, under the provisions of Kansas for 1917, have established or which shall, under the provisions of said chapter, hereafter establish and maintain a high-school extension course of two years, which extension course shall attain an annual enrolment of at least seventy-five pupils, shall be entitled to receive from the state of Kansas a sum not exceeding in amount one hundred dollars per annum for each and every student enrolled with an actual attendance of 80 per cent of the time of the school year, and said sum so received to be used only for the operating and instructional cost of such extension course.

Provided, The state shall not expend an amount greater than the amount spent by the local school authorities.

SEC. 2. Before any school shall be entitled to receive the funds provided for in this act, it must have maintained such an extension course for at least two years and such course shall have been approved and accredited under such rules and regulations and inspections as the state board of education may establish and maintain.

² Revised Statutes of Kansas, 1923, Sec. 72—3301 to 3304.

SEC. 3. The funds herein provided for shall be apportioned to the various schools entitled to receive the same by the state board of education, which board is hereby authorized and empowered to make all necessary rules and regulations pertaining thereto.

SEC. 4. The state treasurer is hereby designated as the custodian of the funds provided for in this act and shall pay moneys appropriated for this purpose by the legislature of Kansas to the boards of education or boards of trustees of high schools maintaining such extension courses. Said moneys shall be paid on warrants drawn by the state auditor on vouchers approved by the state superintendent of public instruction.

SEC. 5. The state treasurer shall make a biennial report to the state board of education, showing the receipts and disbursements of all moneys received and paid by him under the provisions of this act.

SEC. 6. This act shall be construed as supplemental to Chapter 283 of the Session Laws of Kansas for the year 1816.

SEC. 7. This act shall take effect and be in force from and after its publication in the official state paper.

The legislative committee of the Kansas Association of Junior Colleges is still very active, and communities are aroused to the need of junior colleges as never before. With a law of the type outlined, Kansas might well aspire to a front-rank position in the support of public junior colleges.

VACATION "BLUES"

BARNET RUDMAN

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Summer, the season of professional rejuvenation! Teachers in tens of thousands are making their annual pilgrimage to sanctuaries of higher learning, there to yield to the spell of an enchanting atmosphere, ears wide open for the truth, even such as touches their personal shortcomings. From hundreds of educational pulpits they are being inspired, advised, instructed, criticized. Sometimes, in the course of their studies, it is hinted to them gently that they, the teachers themselves, are, in a large measure, the source and the remedy of most of their classroom troubles. It is "up to them" to recognize the problems and to effect a solution. Obviously, summer schools aim to help teachers take inventory, as it were, of their own selves and to send them back to their classrooms with a replenished stock and a new enthusiasm.

We who cannot afford to go to summer school may still do the right thing by the profession if we go through the motions at home. I, for one, have subjected myself to that searching self-analysis to find wherein I could do better. The inquiry, I must confess, laid open many a vulnerable spot, pointed to many mistakes, discredited more than one pet method tried again and again and found wanting—which revelations I hope to be able to capitalize for my future work.

This point might have been a good place to stop, but, unguided by a higher discipline, my mind went off at a tangent and ventured into forbidden territory.

Is it really all "up to the teacher"? What of the factors over which teachers exercise no control?

Let us see. Here is a class in high-school algebra, twenty-five in number. A typical class. They are all in it: the two or three mentally alert, brilliant, eager, able; the ten or twelve less ambitious, less

* This article was accepted for publication in August, 1926.—EDITOR.

able, yet ready to follow if properly led; the four or five utterly unfit for the subject, a liability to the class, an indictment against the system that permits them to be there; and the remaining six or seven of average ability, very ambitious to pass in algebra but unwilling to spare any effort for it, as their true interests lie elsewhere. With the last two types, we high-school teachers fail. The one cannot learn; the other will not learn. The last division in particular constitutes what I consider the most serious problem of the public high school today. That ever growing indifference of the high-school pupil toward his studies, that strong reluctance to engage in anything that calls for mental effort, and, above all, the intelligence which the pupil gains at the very threshold of the high school that there is a way of "getting by" without working are ailments calling for immediate treatment, since they are contagious and already a large part of the high-school enrolment is afflicted.

The teacher will not assume responsibility for this state of affairs; nor is it within his or her power to remedy it. This may be a daring assertion and contrary to all teachings of modern pedagogy. Indeed, lectures, books, and articles on the subject assert authoritatively that the right kind of motivation and teaching skill will reclaim the modern boy and girl for the school and its work. But, alas, what motivation is powerful enough to divert the indifferent high-school pupil of today from the automobile to the Pythagorean theorem, from the "movies" to quadratics, from the dance hall to logarithms? Surely the present-day civilization offers a brand of motivation against our work by far more powerful than any we at present try to devise for it.

Modern life, then, is the source of the evil, and, frankly, our public-school system has failed as yet to cope with the situation. Witness the dismal spectacle of a surging, rushing industrial era advancing by leaps and bounds and behind it, the gap ever widening, an awkward, slow-moving school system in a feeble and pathetic effort to catch up. Garages, modern and up to date in every way, grow daily in number within our communities, small and large, to meet the needs of the automobile, while old school buildings with obsolete equipment are still deemed good enough to house the most puzzling and unusual product of this age—the boy and girl of today.

Motion-picture houses spring, as it were, from the ground, impressive structures, bewitching in their inner magnificence, beckoning to our youth and drawing them with magnetic force away from the school and its duties, while the timid requests of school superintendents for new school buildings are met with prolonged deliberations and appointments of building commissions to "study" the projects. In the end, as it frequently happens, a public-spirited commission reports, with solemn regard for the taxpayers' "interests," that the present school buildings are still adequate for the needs of this generation. In an age when picturized dramas, expensive, elaborate, gorgeous, some of them carrying a tremendous appeal to the baser instincts of our school population, are being changed twice a week in our theaters, superintendents of schools split hairs, for months and years, with their school boards over a proposed change in the high-school curriculum to include a domestic-science course.

Is it thus that education hopes to fulfil its mission? How far can we go, laboring as we do under this professional inferiority complex, ever timid, ever begging for things from school boards, ever dictated to from without? The physician will administer ether only to those fit to take it. We administer mathematics to all who ask for it, and, as exposing the unfit to mathematics is not normally attended by any visible bodily harm to the individual thus exposed, there is an undue demand for it. All we can do is merely to act in an "advisory" capacity. We can tell John that, in view of his past record, it would not be advisable for him to go on with algebra, or to continue with Latin, or to take an advanced course in French. The final decision in the matter, however, rests not with John's teacher but with John's mother. She decides, despite the fact that in most cases she knows little or nothing about her son's mental capacity. John must "complete" the college-preparatory course and must go on with algebra, or continue with Latin, or take an advanced course in French. Hence another potential failure.

The remedy? To be effective, it must strike deep, at the very roots of the evil.

A public-school education, it is said, is the birthright of every American boy and girl. Does George enjoy this birthright when he is forced to labor hours on Latin only to fail in it, though he might

spend these same hours pleasantly and profitably in a machine-shop class, or in an art class, or in a physical-culture class? Does Mary enjoy her birthright when she is forced to fail in geometry, though she might be capable of good work in a sewing class or have special adaptations for the domestic sciences? The answer points to the need of new, modern, well-equipped schools offering many diversified courses of study—the more the better—to meet the various inclinations that boys and girls bring with them to school.

A system of schools of this type would make possible the raising of scholastic standards all along the line from the first grade through the high school—another much-needed reform. That “getting-by” institution must be dealt a death blow. A passing mark should represent a fair knowledge of the subject and nothing less.

To bring about these changes, we need a profession with a backbone. Teachers, principals, and superintendents should feel their authority and make it felt by others. They are held accountable for results in public education; they should have a free hand in the ways and means of securing such results.

We also need a public opinion enlightened in matters educational. It is not enough to instruct teachers in modern educational theory. The home, where education goes on beyond the jurisdiction of the teachers, must be impressed with the seriousness of our work and trained to co-operate with us. School boards must be made to see that the interests of the taxpayers are not necessarily served by saving on the education of their children. Editors of the press might be reminded that education is entitled to at least as much of their study and editorial space as is prohibition or sensational court procedure. Yes, public education must plead in its own behalf with the public.

Such seems our task. We dare not take it lightly, as no less an issue is involved than the educating of our young.

THE PERSONAL ADVISORY SYSTEM IN THE FRESNO HIGH SCHOOL

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The increased enrolment in the high school on the part of the non-college-preparatory group, the democratic conception of the function of the modern high school, the higher standards required of all entrants to colleges and universities, and the revision of the curriculum to meet the varied interests of all pupils have increased the demand not only for a definite educational, vocational, and curriculum-guidance program but also for a personal advisory system which will enable the school administration to make close and friendly contacts with the pupils in both home and school relations.

As the school has grown in size, the machinery and the system have become more complex. To the pupil entering a large cosmopolitan high school, the different pupil organizations and extra-class activities—student body, merit system, boys' federation, girls' league, class organizations, advisory groups, clubs, co-operative store, pupil bank, weekly paper, interschool debates, and athletics—and the several curriculums with different combinations of courses seem bewildering. To select the right course, to make a choice of a club, to engage in some of the sports and activities, and to adjust oneself happily in one's school life are not easy without a general preview of the school system, information regarding the requirements in the different divisions, and an acquaintance with pupils who will furnish pleasant and wholesome companionship.

To meet the changed conditions and to make a connecting link between the home and the community, Superintendent William John Cooper reorganized the Fresno High School two years ago. The heads of departments were discontinued, and directors of eight divisions were appointed, whose duties are a combination of those of a department head and those of a counselor. Allied departments were combined, and eight divisions were formed as follows: agriculture; athletics and physical education; English, including English,

commercial subjects, and library science; fine arts, including music, art, and home-making; foreign language, including Latin, French, Spanish, and German; pre-engineering, including mathematics, physics, electricity, and mechanical drawing; pre-legal, including the social sciences; and pre-medical, including physiology and hygiene, biology, and chemistry. Each division offers several combinations of courses for graduation. Besides the courses that prepare for colleges and special schools, courses are provided for those whose education will cease with high-school work.

On entering the high school, the pupils, with the advice of the vice-principal or the dean of girls, enrol in the division which is most nearly that of their major interest and vocational choice. For instance, one finds in the pre-engineering division not only the pupils who intend to be engineers but also those who are interested in science, mathematics, architecture, and the mechanical trades. The groupings are not hard and fast. If a pupil begins a course and finds that he is not suited for the work, he may change divisions on the approval of the dean and the director of the division in which he is registered.

The teachers of the special subjects in the division constitute the advisory teachers or home-room teachers for the pupils in the division.

The purpose of this article is to tell something of the advisory capacity of the director and the teachers in the division without stressing the other duties of the director, which are departmental in nature, such as supervising the subject work in the division and taking the lead in curriculum-building. In addition to the twofold job of department head and counselor, the director also does part-time teaching. The salary of the director is about the same as that for department heads in high schools in California.

The vice-principal, the dean of girls, and the eight directors form the principal's cabinet. The pupil organizations, the extra-class activities, and the social affairs are under the supervision of the vice-principal and the dean of girls; the work in counseling and guidance is the function of the directors and the teachers.

The director and the teachers of each division form a smaller but definite unit for carrying out the routine work required by the office,

such as making reports, filling out questionnaires, arranging the pupils' programs, and registering the pupils, and for putting into effect a program of educational, curriculum, and social guidance. Division meetings are held for a review of matters presented by the principal, for consideration of the various problems connected with the work, and for discussion of methods to secure the best results.

In addition to the work done by the advisory teachers, the director's office serves as a clearing-house for the adjustment of many difficulties, for consultation in special cases, and for interviews with pupils and parents. In the director's office are kept on file a copy of the pupil's program of studies; a record of his marks for each semester in the high school; an individual record sheet showing general information, intelligence score, and scholarship and character ratings, furnished by the research department at the time the pupil entered high school; and a composite character-rating sheet made for the pupil in his senior year. Non-passing slips which state the reasons for unsatisfactory work are sent by the classroom teachers to the pupils' director every three weeks. With the records and information available, the director is in a position to keep in close touch with all the pupils in his division.

The director has personal interviews every six weeks with all the boys and girls in his division who fail or receive poor marks. After the interview, if it is thought necessary, a letter is written to the parent informing him of the pupil's lack of success in school work, the reason for his failure, and suggestions for improvement. If the pupil's work continues to be unsatisfactory, a personal interview with the parent is requested. All such cases are followed up by special reports from the classroom teachers and by reports from the pupils at stated times.

A boy who has expressed his intention of attending college may be receiving passing marks, but his scholarship record may not be high enough to earn the principal's recommendation to college. In such a case, the parent is notified. If the boy has the ability to do college work, the boy and his parent are told explicitly what he must do to earn college recommendation. If, on the other hand, the boy is working up to the level of his capacity, perhaps some change in program or course is suggested.

It is the aim of the director to check carefully the work and the attitude of the pupils during their first year in high school, since this is the time that boys and girls most need friendly guidance and careful supervision. If they become adjusted in their social relations during the first year and make satisfactory progress in their class work, success in the junior and senior years may reasonably be expected. There is no doubt that many indifferent, uninterested, and unsettled boys and girls can be kept in school if they are dealt with intelligently and if, as the occasion may demand, a little persuasive firmness is mixed with sympathy.

The director not only gives information about the entrance requirements of certain colleges and universities and about the preparation necessary for specific lines of work but also has friendly talks with the pupils who are discouraged, who have adverse home conditions, or who have the wrong mental outlook. The help given these pupils is perhaps the most worth-while work of the director. Since the director has no disciplinary power, the relation is that of an interested friend and adviser. Pupils will often take the initiative in seeking the director and in discussing with him what are often very minor difficulties but what seem to them very grave problems. They like to have a friend to whom they can talk freely. As one boy wrote, "It seems good to have someone like a director interested in you, because a fellow always needs friendly advice which cannot be secured from all the teachers."

While the personnel work with maladjustment in scholarship and in personal relations has been stressed, the school is not unconscious of its duty to the more gifted and promising pupils. Grouping according to abilities and interests, extra assignments, encouragement to do original work, occasional letters to parents commending their children for exceptional achievements, and insistence on a high grade of scholarship are some of the means used to develop the initiative and the creative ability of the superior groups.

It is rather difficult to appraise one's efforts scientifically or to see tangible results when dealing with the personality, the emotional life, and the social inhibitions of boys and girls, but two years of experimenting under the present system show decided gain on the credit side of the student body and the administration.

With the educational and curriculum guidance of the advisory teacher and the director, the pupils plan their programs of studies more thoughtfully. This results in fewer mistakes in the choice of subjects and in fewer requests for changes of program during the year. The careful consideration of courses together with the follow-up of the pupil's progress materially reduces the number of failures.

Detailed information with regard to a pupil's scholastic record and a history of his previous school life can be furnished the principal immediately upon request. A careful study of such data gives him a background for the analysis of disciplinary cases, for interviews with parents, for the selection of pupils for his leadership group, and for consultation with the scholarship committee.

The contacts made with the parents through interviews and letters often bring about a better understanding of home conditions and enlist the sympathy of many parents who have been ignorant of the personal interest the school has in the pupils. The parent who wishes more information about his son or daughter may be very much enlightened by a visit to the director's office, and the information may not only help him to understand his child better but offer suggestions for clearing up a difficult situation.

The intimate acquaintance with the pupils early in their high-school work, the sympathetic plan of keeping in touch with their class and civic activities, and the occasional interviews serve as preventive measures and often render strong remedial efforts unnecessary. Realizing that the director's office is a place where they may discuss their interests as well as their troubles and receive a kindly hearing, pupils are made to feel that the school is organized for the purpose of knowing, helping, and training each individual citizen.

THE ORGANIZATION OF STUDENT-GOVERNED STUDY HALLS

LUTHER ABELE

Central High School, Cleveland, Ohio

Not long ago the administration of the Central High School, Cleveland, Ohio, was confronted by two apparently unrelated problems—the problem of reducing the cost of the operation of the study halls and the problem of enlarging the scope of the activities of the Student Council. Forty-four teaching hours were required daily to conduct eight study halls of from four hundred to six hundred pupils each. Since the uniform teaching load is six periods, it is readily seen that the time of more than seven teachers was required.

The Student Council had functioned successfully in overcoming disorder in the badly crowded lunchroom, in managing clean-up campaigns, in securing community co-operation, and in carrying out a variety of other projects. While all these activities had definite value, none presented adequate opportunities for the pupils to participate freely in their own government. It was hoped, therefore, that some project, big enough to incorporate the principle of self-direction on a large scale, might be found.

After some thought, it became apparent that the solutions of the two problems might be identical; the answer to the first problem might be made the answer to the second. Since it seemed desirable to provide the Student Council with a large project involving actual student government, would not the study halls, reorganized to permit of student co-operation, furnish that project? This possibility was suggested in part by the fact that the Student Council had previously sponsored several honor study rooms of about thirty carefully selected twelfth-grade pupils. The scheme projected was to extend the principle to the auditorium study hall, where it would include the entire enrolment of Grades VII-XII.

In October, 1925, the matter of student government in the study halls was presented to the Student Council as a possible project. The members of the council were enthusiastic from the very begin-

ning. A provisional committee of five was appointed to work with a faculty adviser in perfecting a detailed plan of organization. Several weeks later the plan was submitted to the Student Council and adopted by it. It has since been amended so that it is substantially as follows:

All study halls are conducted in the auditorium. On the main floor there are 848 seats, divided by two aisles into three approximately equal sections—A, B, and C. Of the twenty-six rows in each, sixteen are provided with folding desk tops attached to the backs of the chairs in the preceding row. Every third row of seats is not thus equipped. Such rows always remain unoccupied. In this way, avenues are created, which, in addition to the aisles, afford direct and ready accessibility to every pupil in the auditorium.

The organization requires one teacher and the following pupil officers: one assistant teacher, one clerk, and twelve (more when there is an overflow to the balcony) proctors, one of whom is designated as the "guard." The assistant teacher and the clerk are appointed by the teacher. The proctors are selected by the assistant teacher, the clerk, and a Student Council committee of three, who together deliberate on the fitness of candidates. Care is exercised in choosing only those who can afford to devote time to the work.

Although the organization demands the presence of a teacher at all times, this teacher must be secondary in the eyes of the pupils. At the beginning of the semester, he must work out a seating chart which will indicate readily where the pupils from the various home rooms may be found. Through the home-room teacher, he must notify each pupil of his assignment. After the first few weeks, he does virtually nothing so far as the pupils see, since he works through the staff organization as much as possible. He handles discipline cases as they are referred to him by the assistant teacher, and he alone has the power to mete out punishment. No one other than he may excuse pupils from the room for any purpose. He receives in his mail box reports from the home-room teachers on the absences of the previous day. When doubt is expressed as to the accuracy of a report, he investigates personally in order to check the work of the officers concerned. He makes additions to the roll as directed by the home-room teachers, and he is the only one to strike off names from it. He

must remain in familiar contact with every detail in order to detect irregularities of any kind. Finally, he reserves the right to dismiss officers at any time.

To the assistant teacher is intrusted the conduct of the study period—it is his study hall. Everyone present, except the teacher, is directly responsible to him. He maintains order and handles cases of discipline, referring the case to the teacher only when he deems punishment necessary. He circulates constantly through the aisles and avenues, picking out the bad spots and suggesting to the proctors ways by which to improve the conduct in their sections. With the approval of the teacher, he may dismiss any officer. The assistant teacher has little opportunity for study. He receives three points toward the "insigne honoris," a recognition of service to the school awarded to graduates by the Student Council.

The clerk handles all attendance records. At the beginning of the hour he delivers to each proctor a list of the names of the pupils due in the proctor's unit, together with a supply of slips on which to record the absences of pupils from the hall. These are clipped together in sets and conveniently marked by colored labels to indicate the various sections. The clerk secures substitutes for any proctors who may be absent and notifies the home-room teachers of these proctors that they are absent. He then obtains from the teacher the names of any pupils whom he may have excused and goes to the library to secure permits from all pupils who are studying there. He collects from the proctors the lists and absence slips. He sorts out all slips for which he has permits or excuses and destroys both slip and permit. If he finds any permit for which there is no corresponding absence slip, he immediately interviews the proctor, asking for an explanation of the omission. A good clerk trains careful proctors. The remaining slips are carefully examined to make certain that all necessary information is supplied. Before the close of school the clerk must report to the teacher with these slips, secure from him a list of the absences from school for the day, and destroy all slips for which there are corresponding names on the absence sheet. He places the slips that still remain, all signed by the teacher, in the mail boxes of the proper home-room teachers. The clerk is the only officer who has duties to perform outside the study hour. He

usually finds about fifteen minutes for study before the close of the period. The compensation is two points toward the "insigne honoris."

The proctors are in immediate control of the various units. Each is put in charge of four rows of seats, containing about forty pupils in the fifty-two seats. He sees to it that the pupils sit down promptly, open their books, stop talking, and begin to study. He checks the attendance for his unit; he must turn in a slip for every pupil who is absent whether or not he knows the reason for the absence. This seldom requires more than fifteen minutes. He then seats himself with his pupils and devotes his time to studying. He rises only when it becomes necessary to remind some pupil in the group to refrain from talking. If such a pupil persists in violating the rules, the proctor asks the assistant teacher to settle the case, either at once or at the close of the period. At the beginning of his term of office, each proctor receives a copy of the following instructions.

1. Be regular in attendance.
2. Get to the auditorium before the second bell rings.
3. Go to the rows assigned to you at once.
4. See that your pupils are seated and quiet, with books open, as soon as possible.
5. When the secretary delivers your list, take the attendance quickly and accurately. Have your slips ready when the secretary calls for them.
6. Maintaining quiet and order in your section is your chief job. However, remember that you are not a policeman. Remain seated as much as possible and study as much as you can. To succeed, your example must be a good one.
7. Do not fuss or argue with your pupils. When a situation arises which you cannot handle, inform the teacher in charge. Whenever possible, tell the pupil to see the teacher in charge at the end of the hour. In all cases take down the pupil's name and home-room number and hand it to the teacher.

The proctor receives one point toward the "insigne honoris."

The guard is always the proctor nearest the door. In addition to performing his duties as the proctor of a unit (always smaller than the others), he must close the door as soon after the ringing of the second bell as directed by the teacher. He then remains outside for about five minutes to challenge tardy pupils, admitting those provided with excuses from teachers and remanding the others to the assistant teacher for discipline. At the close of the period, the guard again takes a position outside the door, this time directing traffic to and from the study hall.

The plan of organization here outlined was introduced gradually. A study hall of approximately 450 pupils, conducted by four teachers, was selected for experimentation. Fortunately, the pupils had been assigned to these teachers by grades. Thus, it was possible to call together the pupils of the first teacher, all eleventh- and twelfth-grade pupils, and present the scheme to them alone. These pupils were organized on the basis of the plan, and the teacher was relieved for class duty. Several weeks were allowed to elapse, during which the pupils in other sections became more and more eager to be similarly organized. Gradually, as the demand grew and other sections petitioned, the idea was extended until the entire group was converted into a pupil-directed study hall under the guidance of one faculty adviser.

The success of the organization prompted its extension into all the study halls and has now been operative in them for almost a year. After this lapse of time we feel justified in saying that the plan has passed the experimental stage. At the present time from 2,271 to 2,895 pupils are being cared for daily, the number varying throughout the week. Only eight teaching hours are necessary as compared with the forty-four originally required. Thus, the first problem—that of economizing in study-hall management—has been effectually solved.

The question of how to enlarge the scope of the activities of the Student Council has been answered as well. The Student Council has been furnished a big project for the introduction of pupil self-government. It may be said, of course, that the eighty-seven pupil officers employed in the system are merely taking time and energy from their lessons to do discipline work or even that the things done by these pupils are worth doing but that they could be done better by adults. To make such a statement, however, is to miss entirely the point of the educative experience for the pupils doing the work. If pupil co-operation, properly handled, is supervised training in citizenship, this plan affords one of the broadest opportunities for the inculcation of vital lessons. Certainly, it will develop within pupils the ability to think about community problems and will give them a sense of personal responsibility for fair play and unselfish service.

A METHOD OF INCREASING INTEREST AND OF PROVIDING FOR INDIVIDUAL DIFFERENCES IN THE HIGH-SCHOOL SCIENCE LABORATORY

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Every teacher of physics and chemistry is confronted with the problem of making the laboratory period more worth while. It is with a view to offering some suggestions with regard to the solution of this problem that the writers have undertaken to describe a plan which has actually been tried and which gives every indication of being valuable. Essentially, the plan consists in allowing each pupil a wide range in the selection of a laboratory problem and in so guiding his choice that the task selected is in accordance with his ability and interests and is at the same time closely related to the classroom work.

The requirement that all pupils do the same experiment certainly fails to provide for individual differences. If the experiment is designed for the average pupil, the bright pupil probably completes his work easily and is not required to do any real thinking commensurate with his ability. He finishes before the end of the period and is idle during the remaining time or at best devotes himself to work other than science. The poor student does not understand the experiment. It seems to him a maze of difficulties. He becomes discouraged. If he is conscientious, he perhaps spends extra periods on an uninteresting and tiresome task. There is no challenge for him to do any thinking because the whole task is beyond his comprehension. Certainly, one cannot but agree that fairness to the pupils requires a change in these conditions. The solution undoubtedly is to provide a simple experiment for the poor student which he can comprehend and from the mastery of which he can get a little of the joy of achievement. At the same time the bright pupil should have something worthy of his powers and should have a real thought-challenging problem.

The laboratory courses in physics and chemistry in the John

Adams High School, Cleveland, Ohio, are attempting to differentiate the work of pupils of varying ability. All the pupils are not expected to do the same experiments and certainly not the same number of experiments. A day or two before the laboratory period several experiments, usually from three to ten in number, are suggested as possible problems. There is suitable discussion of each experiment for the purpose of directing the choice of the pupils. To supply a large number of experiments, many of the standard experiments were divided into several parts. Laboratory manuals were searched for different ideas, and a few experiments were invented. There is always a unity maintained between the suggested problems and the classroom work.

It must be added that the choice of a laboratory problem is by no means limited to the experiments suggested by the instructor. For example, while studying the subject of coal-tar products, a pupil in chemistry read that aniline dyes are often used in foodstuffs. This pupil decided that he would like to spend a laboratory period in an attempt to detect dyes in candy, Jello, pop, etc. Such ideas are always highly commended by the instructor.

Noticing that motors and dynamos are similar in construction and having just performed an experiment in computing the efficiency of a motor, a pupil in physics asked for a larger motor in order to try to run his small motor as a dynamo. His enthusiasm was great indeed when, after using a rubber band as a belt, he succeeded in getting enough electricity from his improvised dynamo to light a flash-light bulb.

Of course, it is only the exceptional pupil who has the ability to invent his own experiments. It is surprising, however, how many original ideas come from the pupils themselves. If a pupil devises a worth-while experiment or improves the technique of an experiment, he is encouraged by the instructor, and the best of the new ideas are incorporated into the course. For example, a pupil in physics working on an experiment to determine the index of refraction of water conceived the idea of putting a sheet of white paper under the jar containing the water as a means of reflecting the light to aid in sighting through the water. This idea proved a very valuable addition to the experiment.

The fact that the pupils may choose their experiments or devise their experiments in connection with the work being studied does not mean that they play in the laboratory. On the contrary, more real work is done because of the increased interest. There are minimum requirements which every pupil must fulfil. His work is judged on the basis of the amount done, the way in which it is done, the accuracy of the results, the originality shown, and the difficulty of the problem chosen. It has been found that the pupils with ability actually prefer the more difficult experiments.

At least two possible objections to this method may be raised. First, the work of the instructor is greatly increased. This is true, but experience has shown that the extra work is mostly in the planning of the course and that the instructor is amply repaid by the results. Since the plan usually requires each pupil to work alone, a second objection may be that much additional equipment is needed. This objection is not necessarily valid. In the case of chemistry the standard locker equipment is sufficient for all ordinary experiments of high-school difficulty. Only a slightly more extensive stock of chemicals is needed. In the case of physics it has been found that the plan works with very little additional equipment. More apparatus is in use at one time because of the individual experiments, but a large amount of duplicate equipment is not necessarily required; that available is used more frequently. A particular piece of laboratory apparatus may be used on several laboratory days by different individuals or by the same individual in different experiments, while formerly it was used only once during the semester.

In practice, the additional work on the part of the instructor has not proved burdensome, and the need for a large amount of additional equipment does not exist.

In order to give a concrete illustration of how the plan works in physics and chemistry, a typical laboratory unit for each is outlined.

PHYSICS OUTLINE

The following problems were suggested and undertaken by a class in physics in connection with the subjects of boiling and freezing.

1. Why does a mixture of ice and salt freeze ice-cream?
2. Since it takes heat to melt ice, will a liquid give out heat while freezing?

3. Does butter melt at a point 8 to 10 degrees above the point at which it turns to a solid?
4. What are the melting points of paraffin and sealing wax?
5. What are the boiling points of pure water, salt water, and sugar solutions of various strengths?
6. Can the boiling point of pure water be raised by confining steam and thus increasing the pressure?
7. How low can the boiling point be made to fall by boiling water under reduced pressure?
8. How many calories of heat are required to melt a gram of ice?

Since it is highly quantitative, it is evident that the last of these experiments is suitable for only the most capable pupils.

CHEMISTRY OUTLINE

The following problems were suggested in connection with the study of "Nitrogen and Nitrogen Compounds" in a class in chemistry. Each problem was chosen by at least two pupils. Many pupils did more than one-half of the problems.

1. How may nitrogen be prepared from the air, and how does it differ from the other gases previously studied?
2. How may one prepare ammonia? What are its outstanding properties?
3. How can one prove that ammonia is very soluble in water?
4. To form ammonia from organic material as by the use of flour and slaked lime.
5. To prepare ammonium hydroxide, and to prepare ammonium chloride from it by neutralizing the ammonium hydroxide by the addition of dilute hydrochloric acid.
6. To learn how to detect the presence of ammonium compounds.
7. To prepare nitric acid, and to study its properties.
8. To prepare some of the salts of nitric acid by the use of the acid itself.

To study the solubility of nitrates in water.

9. To prepare nitrous oxide, and to study its properties.
10. To prepare nitric oxide, and from it to prepare nitrogen dioxide.
11. To learn how to detect the presence of nitrates.

Because of their relation to later work in the course, it was especially recommended that each pupil do Problems 6 and 11.

SUMMARY

In conclusion, it is believed that the following advantages arise from the use of the method here described.

1. It furnishes laboratory problems of varying difficulty, thus providing for individual differences.

2. It permits individual work rather than group work, making the pupil definitely responsible for what he does and making it impossible for him to secure credit for copying results that someone else has obtained.
3. It furnishes a choice of laboratory experiments, thus giving the pupil who is familiar with a certain experiment an opportunity to select another, from which he can obtain greater value.
4. The large number of suggested experiments makes it possible for the repeater in the course to have something new and interesting on which to work.
5. The pupil who works rapidly and well is not limited to one experiment but may do several; thus the laboratory work is enriched for him.
6. Because the plan has for its basis independent and individual choice of laboratory problems, it encourages originality on the part of the pupil.

Educational Writings

REVIEWS AND BOOK NOTES

Public-school indebtedness.—The indebtedness incurred for public education in the various states is attracting the attention of a number of investigators in the field of school finance. A study of the public-school bonded debt of the state of Pennsylvania¹ traces the evolution of the bonded debt in that state since about 1800 and points out the factors which have influenced the debt situation. The school laws of the state have had much to do with controlling indebtedness in that they have determined the educational policy and program to be undertaken by the state.

There are several interesting facts revealed in the study. In the first place, "in the early history of the state school system, the policy with reference to financing capital outlays was one of 'pay as you build'" (p. 35), and the districts were given rather large freedom in exercising taxing power. Second, borrowing as a policy was first recognized by the state law of 1854, and the present constitution, set up in 1873, definitely encourages a "bond-as-you-build" policy. Third, borrowing on a large scale began about 1880, and it has increased very rapidly since 1893, but the greatest increase has been since 1919-20. The increase from 1919-20 to 1922-23, a three-year period, was from \$70,999,179 to \$109,801,166, or 55 per cent.

Although the debt is increasing rapidly, the writer does not view the situation with any alarm or misgivings. Pennsylvania ranks nineteenth among the states in the amount of indebtedness per capita. The debt is not distributed evenly over the state, as the greater part of it is concentrated in the cities and boroughs. Eighty per cent of it is in the first-, second-, and third-class districts. There is one bad feature of the situation, namely, some districts have bonded themselves beyond the limits permitted by law.

As a result of his findings, the author makes several recommendations which are worthy of mention, since they may apply to similar conditions in many of the other states. It is advocated, first, that the state council of education should be allowed to pass on applications of school districts for incurrence or increase of indebtedness and that such indebtedness should not be legal until approved by the council. It is extremely doubtful whether the situation is serious enough to justify centralized restriction of the power of the local districts. Second, it is

¹ Isaac Doughton, *Evolution of the Public School Bonded Debt of Pennsylvania*. Philadelphia: University of Pennsylvania, 1925. Pp. 122.

advocated that the power for the payment of indebtedness and its costs should be made unlimited in all districts, as it now is in first-class districts. Third, it is advocated that the school districts should be encouraged to follow a policy of paying for buildings as rapidly as they are needed; in other words, there should be a close approximation of a "pay-as-you build" policy.

The study raises the same question and problem as are raised by other studies of school indebtedness, namely, What is to be the end of the greatly increasing debt for public schools? How can a financial policy and program be worked out that will provide for the enormous building needs of school districts without burdening the succeeding generations? From a careful study of the problem, one of two things seems certain. School districts must work out some plan to meet their obligations as they occur and thus keep themselves out of debt or they will soon find themselves in such bad financial condition that retrenchment will be their only alternative. This situation demands the best financial administration that school districts can provide.

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Health training for the teacher.—The results of the physical examinations given to prospective soldiers during the late war revealed rather startling conditions with regard to the physical status of the young men of the United States. One-third of them were so defective physically that they failed to qualify for service in the army. This fact, along with certain post-war conditions, has revealed the need for an extensive program of health instruction in the public schools. However, present-day needs in health instruction are not met by the type of instruction offered in anatomical physiology and structural hygiene of a decade or two ago. The real aim of educational hygiene is the inculcation of desirable health habits and health attitudes, not a parrot-like memorization of physiological nomenclature. It is more important for the seventh-grade boy to stand and sit erect than to know the names of the scapula and clavicle or to differentiate between the two. It is more profitable for the fourth-grade child to keep his teeth clean than to be able to name them and to describe their structure.

A new treatment of hygiene,¹ intended for use in teacher-training institutions, covers the general field of child hygiene, school hygiene, personal hygiene, community hygiene, mental hygiene, physical education, and the pedagogy of hygiene. In a discussion of the teaching of hygiene, certain effective aids and devices are described: the health club, dramatic presentation, the health project, and various other objective helps. A detailed outline of topics suitable for the hygiene work of Grades I-IX is given. Sources and materials for the study and teaching of hygiene are suggested. Among the various topics discussed are the skin, the muscular system, the skeletal structure, respiration, circulation, food

¹ Lawrence Augustus Averill, *Educational Hygiene*. Boston: Houghton Mifflin Co., 1926. Pp. xvi+546. \$2.60.

and digestion, vision, hearing, school hygiene and sanitation, mental hygiene, community hygiene and sanitation, and the administrative problems involved in a program of health instruction.

The book includes a selected bibliography for supplementary reading; the information given might have been more complete, since only the names of the authors and the titles of the publications are included. At the end of each chapter are topics for special study and report and a short list of selected references. Certain of the chapters contain a summary of points to be emphasized in teaching the material of the particular chapter. In some of the discussions dealing with personal hygiene the author divides his treatment into two parts; for instance, in the chapter on vision, a description of the structure of the eye is followed by a discussion of the hygiene of vision.

The book should prove useful as a text in general or overview courses in educational hygiene in teacher-training institutions. It may be read with profit by teachers in service and by interested lay readers.

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An elementary text in economics.—Recent years have witnessed a marked tendency toward the introduction of material dealing with economics in the upper elementary and junior high school grades. For the most part, such material has centered around a study of occupations and vocational civics, but, in an increasing number of instances, attention has also been given to elementary economics. The latter tendency is especially commendable, for a study of vocations apart from a consideration of economic principles is likely to consist of mere descriptive matter barren of genuine educational worth.

A book¹ which will contribute to the movement described has recently been published. Its purpose, to quote the author, is "to present fundamental economic principles in form and content comprehensible by young people of the age of the highest grades in elementary and intermediate schools. It assumes no previous formal economic knowledge, but assumes a reasonable observation of everyday economic facts, and uses that observation for building a more formal economics" (p. viii).

The book is divided into two parts, the first dealing with "Things as They Are"; the second, with "Improving the Social Order." In the first part the author treats such topics as "What Is Success?" "Chances of Success," "Qualifications for Success," "Impersonal Essentials of Economic Success," "Economic Independence," "The Place of Land in Winning Success," "The Relation between Rent, Interest, Wages, and Profit," and "The Function of Money and of Banking." In the second part the author discusses such topics as "Socialism," "Communism," "Anarchism," "The Single Tax," "Labor Unions," and "Industrial Democracy."

¹ William Morse Cole, *Economic Success*. New York: Macmillan Co., 1926. Pp. xvi+392.

The author does not attempt to avoid technical terms. He recognizes very wisely that economics, like mathematics and the natural sciences, has its own vocabulary, which he employs without apology when such use promotes clarity and avoids circumlocution. As a rule, he makes the terminology plain by providing abundant and fitting illustrative material. The style and concreteness of the book may be judged from the following excerpt.

Now observe what a dollar is. The word "dollar" has a very definite meaning, but most people have very little notion what that meaning is. It is 25.8 grains of gold of standard purity (defined by law), stamped by a mint of the government. If the government had chosen to make five grains of gold a dollar, five grains would have been a dollar. That is, a dollar is only a name for something. We are constantly changing the meaning of words; the meaning of "dollar" may change, and has indeed changed. Yet it is very important that the meaning of "dollar" shall not change, for people are constantly buying or selling things for future payment, promising to pay so many dollars; and whenever the word "dollar" actually changes in meaning they have to pay more or less than they agreed to pay. So any change in the value of a dollar means hardship to some and gain to others; therefore what we call "stability" is of great importance [p. 240].

The author has been only partly successful in his praiseworthy endeavor to include "no dogmatic statements except statements of historical fact" (p. ix). Many economists will reject his conclusion that "owners of capital . . . pay, and must pay, as much for labor as the standard of living of workers establishes" (p. 227). Socialists like Spargo will not subscribe to his proposition that, in the production of wealth under socialism, "everything that can be owned at all (land and capital) will be owned not by individuals but by society" (p. 271). Nor will they accept his statement that "under pure socialism no one will be allowed to go into business for himself; he cannot hire others to work for him, and he must himself work for the state" (p. 275). Again, the condemnation of government insurance of bank deposits (pp. 294-95) with no mention of the successful experience of Nebraska is indicative of the partisan or the propagandist rather than of one who believes that "the dogmatic method of instruction is fatal" (p. ix). The citation of the Commune of Paris as an "example of communism applied to a whole people" (p. 303) is a lamentable instance of ignorance or misunderstanding. The author has, in fact, lessened the value of the text for educative purposes by the manner in which he has treated many controversial subjects.

The book contains twenty-seven illustrations. Each chapter is supplied with questions for discussion, most of which are thought-provoking and stimulating. Unfortunately, the book contains no citations for supplementary reading. Aside from the shortcomings noted, the text has merit.

HOWARD C. HILL

Administration of the small high school.—The typical American high school has an enrolment of slightly more than one hundred pupils and a faculty of from five to seven teachers. It is usually administered by a young man who has

gravitated into the principalship without preparation, observation, or experience relative to the problems of the organization and administration of a high school. He teaches two or three left-over classes and may coach athletics. He needs definite, practical, and comprehensive information to guide him in the solution of the many complex problems which the high-school principal must solve.

A book¹ designed to aid the typical principal of the small high school has been prepared. The author has presented in concise form a large quantity of concrete information about high schools and has interspersed this information with practical suggestions for the solution of problems. Although the book is comprehensive in scope, the information and suggestions are detailed and specific.

In a discussion of the "Meaning and Function of American Secondary Education," the author states that the principal should be guided always by as definite an understanding as possible of the purposes served by the high school. From a consideration of the psychological and sociological aspects of adolescence, it appears that the high school should develop and broaden the habits, knowledge, ideals, attitudes, perspectives, and tastes of the individual and should make him an active producer, a wise consumer, and an altogether desirable member of society.

The chapter on "Discipline," for the inclusion of which the author makes no apology, presents effective solutions of disciplinary problems with illustrations from the author's experience. Many of the suggestions are for the use of the classroom teacher. The author believes that, while the principal should set the standards of discipline, the classroom teacher cannot keep his room in order by proxy; he cannot shift disciplinary responsibility to the principal's office. The chapter closes with this philosophy:

But the highest form of conduct control is self-control, that self-restraint which comes from a consciousness that no matter how we may deceive others, we cannot deceive ourselves, that the All-Seeing Eye is not only above but also within, that no applause however great from our fellows who do not know us can save us from the condemnation of ourselves. Let us by every power seek to bring to the child by degrees this respect for himself, which lies at the foundation of citizenship, morality, and all civilized society [p. 269].

The author does not attempt to include in his book a psychology of adolescence. Neither does he discuss the duties of the principal as a supervisor of classroom work. He limits the field strictly to high-school organization and administration. In this field the treatment is complete. Although the book was prepared primarily for principals of small high schools, all persons interested in the problems of high-school organization and administration, such as members of boards of education, superintendents, principals, teachers, patrons, and high-school inspectors, should find in it discussions of their particular interests.

CLOY HOBSON

¹ William Adelbert Cook, *High School Administration*. Baltimore: Warwick & York, Inc., 1926. Pp. x+378.

Adolescent behavior.—In recent years the literature on adolescence has not received serious consideration by educators on account of its highly empirical character. The gradual accumulation of a body of case material by students in personnel research is rapidly bringing about a change in attitude on the part of those who formerly tabooed most of the conclusions regarding the nature of adolescence and the character of adolescent experiences. A book¹ by a trained investigator offers case material in support of certain classifications of adolescent experience which may prove helpful to those who deal with adolescents.

The book consists of ten short chapters, which discuss different types of adolescent experience. The chapter titles are: "Self-Discovery," "The Adolescent Egoist," "The Shifting Complex of Impulses," "Adolescence and Sex," "The Imagination of Youth," "The Active Life," "Personal Influence and Suggestion," "Moral and Social Development," "The Normal Development of Religion," and "Varied Religious Experiences." In each chapter the author comments on various types of adolescent experience and supports his statements with brief reports gathered from college students who were asked to recall and describe their attitudes and thought reactions in the case of various problems which concerned them during adolescence.

The plan of the book and the technique of the author are admirable. The weakness of the work lies in the supporting data. In the first place, the case reports are from women only; second, they are from women of the intellectual type. The range of experiences would without doubt be greatly extended if reports were gathered from non-college women, to say nothing about the material which might come from men of different types. The author has made a splendid beginning, however, and his work points the way to further effort in the study of adolescence.

W. C. REAVIS

Manual of English usage.—It is nearly twenty years since the appearance of the first edition of Professor Woolley's *Handbook of Composition*. The highest testimony in its behalf is that it has remained throughout these years the chief work of its kind. Only a few books of similar nature have appeared, and these have been designed chiefly for use in elementary classes. Two revisions of the original text have been published since Professor Woolley's death, the latest² being that prepared by Professor Franklin W. Scott, formerly of the University of Illinois. The general aims which were outlined in the preface to the first edition have been closely adhered to by Professor Scott. Likewise, the organization of the text remains essentially the same. Rules 1-244 have not been altered except for occasional modification of the phrasing. The later pages of the text contain new rules founded on certain well-established changes in usage. The most im-

¹ E. Leigh Mudge, *Varieties of Adolescent Experience*. New York: Century Co., 1926. Pp. xvi+134. \$1.75.

² Edwin C. Woolley, *New Handbook of Composition*. Revised and enlarged by Franklin W. Scott. Boston: D. C. Heath & Co., 1926. Pp. xxviii+342.

portant of these occur in the chapter on letter-writing. The increasing volume of typewritten correspondence has caused the editor to introduce new letter forms, which conform to established practice in this field. A most commendable addition to the text is Professor Scott's chapter on bibliographies and footnotes. While the author does not attempt to be exhaustive in the treatment of this chapter, he provides the essential rules covering the situations that most frequently occur. Another important change is the inclusion of many more exercises and the placing of these after the treatment of the rules to which they relate.

Such changes and alterations as have been made conform admirably to the original author's plan. It was Professor Woolley's belief that only the masters of the art of written or oral expression may be permitted to violate the rules of good usage. When a sufficient number of unquestioned masters violate the same rule, it may well be changed. Until that time, it remains for the student and the novice to practice invariable conformity. It is certain that in twenty years a few changes in usage would occur. Professor Scott has sought to incorporate these in the revised text. To the new rules and to the old, the same spirit of conformity is expected by the editor. At present, when scores of new texts on English usage are constantly appearing, many of them confusing and contradictory, it is well that the teacher may have such a handbook that is both fresh and accurate.

RUSSELL B. THOMAS

Lessons on word study.—*The Century Vocabulary-Wordbook*¹ is primarily a text for high-school pupils. The authors suggest different ways of using it in class work. One of these suggestions is excellent, namely, that the book be used one day a week in English classes.

The book contains seventy-two lessons, each of which introduces some variation either in subject matter or in method. Several lessons are devoted to the origin of our language. Most of the words are Latin or Anglo-Saxon in derivation, but there is a generous sprinkling of words from the French, Spanish, Greek, Arabic, and Dutch languages, with a small number of words imported from the Hebrew, German, Portuguese, Turkish, Indian, Negro, and Australian languages. Type words are largely from a single language; scientific words from Greek or Latin; religious words from the Hebrew; maritime words from the Dutch; and musical or picturesque words and phrases from the Italian, Spanish, French, and Indian.

There are excellent exercises for increasing one's vocabulary of antonyms and synonyms. These will prove helpful in using words which show fine distinction in shades of meaning. Some of the lessons require a feeling for words. No person can demonstrate that he has a real vocabulary until he has developed feeling to the point where he knows that he has used the correct and most ade-

¹ Garland Greever and Joseph M. Bachelor, *The Century Vocabulary-Wordbook*. New York: Century Co., 1926. Pp. xiv+210. \$0.96.

quate word because it sounds right. One lesson calls for the preparation of a list of the different kinds of boats and ships; another, for the names of the various ranks of commissioned officers in the army; still a third, for topics connected with Indian life. The whole series increases one's knowledge of technical words and phrases and one's familiarity with them.

Anyone who studies the book systematically will develop a working vocabulary far above the average. It should therefore be placed in the hands of college students as well as in the hands of high-school pupils.

W. G. PIERSEL

Reading material for second-year high-school French.—Fourteen years have brought about decided changes in the teaching of modern foreign languages. Textbooks have undergone marked changes in an effort to meet the demands imposed by the progress in pedagogical methods. Since the last textbook edition of Jules Verne's *Le tour du monde en quatre-vingts jours*, which appeared in the year 1912, there have been such changes in the teaching of French that it is with considerable interest that we examine a new, direct-method edition.¹

The text for this book is taken from the latest Hetzel edition, which has been reduced in length by the shortening of the descriptions and by the elimination of some of the minor incidents. The material is well selected and makes easy, interesting reading. The development of the plot is essentially the same as in the original story, and the trip across America, which is often omitted in other texts, has been included in abridged form.

The book has 18 pages of introduction, 136 pages of text, 19 pages of notes, 59 pages of exercises, and 80 pages of vocabulary. The printing is good. Smooth paper has been used, and the binding is of cloth. The book is of a convenient size. Unsigned pen-and-ink drawings depict the imperturbable Phileas Fogg and the naif Passepartout in all their interesting situations. A sketch of Jules Verne serves as the frontispiece.

The text is supplemented by notes, exercises, and a vocabulary. The notes, which have been prepared with great care, contain much valuable material about the customs of the peoples visited by the two "globe-trotters." There is a considerable amount of grammatical explanation which might well be omitted from a text "for comparative beginners." The pupil is asked to "note the redundant use of *ce*," to "account for the subjunctive," to "observe the agreement," and the like. Such material might easily be conceived of as forming a part of an advanced grammar course in college.

Much thought has been given to the preparation of exercises. Questions based on the text have been prepared as an aid to the teacher. Idiomatic expressions have been listed, and the pupil's attention is called to the difference between "*la montre à la main*" and "*la main dans la main*." A *Version* is included for every lesson. Each lesson is accompanied by a *Sujet de composition*,

¹ Jules Verne, *Le tour du monde en quatre-vingts jours*. Edited by Alexander Green. Boston: D. C. Heath & Co., 1926. Pp. xviii+302. \$1.00.

which gives the pupil numerous suggestions for compositions. All this is admirable. When we examine the *Questions d'examen*, however, we note that the grammarian has infringed upon the pedagogue. The pupil is asked to explain the use of the article in the expression "*l'on aime*," to explain the omission of the article in "*Vaste édifice*," to justify the use of the subjunctive in "*eussent été en or*," etc. Such questions belong to the science type of teaching and have no place in a language-arts text. Grammar is simply a systematic attempt to classify the constructions of a language as they exist and has no part in explaining or rationalizing the constructions. Furthermore, if the explanations have some historical or etymological source, such material is of value to the specialist, not to the average boy or girl whose study of the language is likely to be cursory.

The vocabulary has been compiled with scrupulous care. Countless entries and numerous cross-references have been listed so as to make it as comprehensive as possible. Even the French words which are spelled exactly the same as the English have been included. It is obvious that, when a pupil encounters "*l'éducation*," "*l'éléphant*," "*l'inversion*," "*le dollar*," or "*la France*" in a French text, his natural conclusion is that the French and the English orthography are in this case identical. So far as learning the gender of such nouns is concerned, it is doubtful whether the normal boy or girl engrossed in reading Jules Verne's *Le tour du monde en quatre-vingts jours* is going to look up the word for "continent" to see whether it is preceded by "*le*" or "*la*."

GERTRUDE MARCELLE GILMAN

Improved geometry.—Educational reforms of the day probably have had less influence on mathematics, especially demonstrative geometry, than on any other subject in the secondary-school curriculum. Advocates of geometry have not been able to defend the place of this subject in the curriculum on the ground of formal discipline, cultural value, or, as the subject is traditionally taught, even practical utility. As a result, they are facing the situation of seeing the subject greatly curtailed or dropped from high-school programs. The more conscientious teachers have sought relief in reforms in the method, organization, and subject matter of geometry. Recently the National Council of Teachers of Mathematics appointed a committee to take the lead in a nation-wide reorganization of secondary mathematics. As a result, many books have appeared claiming to embody the principles of reorganization as set forth by the committee. A recent book¹ of this type is a laboratory plane geometry, which aims to increase the interest in geometry as a high-school study by enhancing the pupils' appreciation of its value and general usefulness.

The author assumes that geometry is a laboratory science and hence requires a scientific procedure. The material is so arranged that the pupil must take the following steps in arriving at a general truth. (1) He must make constructions

¹ William A. Austin, *A Laboratory Plane Geometry*. Chicago: Scott, Foresman & Co., 1926. Pp. xii+392. \$1.40.

according to specific directions. (2) He must take measurements and make computations. (3) He must state the conditions of constructions and the seeming conclusions. (4) He must give the usual formal proof to establish the truth in general. (5) He must state this general truth in the form of a definition or proposition. (6) He must solve many and varied applications to fix in mind the proposition and to develop skill in computation. This is the method of *learning by doing*. The pupil makes the constructions himself, following specific directions step by step, and thus comprehends the whole as a logical, growing process.

The geometry is correlated with mechanical drawing in that all construction work is to be made in the form of plates. The last chapter of the book contains many fine plates worked out by pupils and also many supplementary projects to show the relation of geometry to various fields of practical work.

The arrangement of the book is such that the pupil's work is always specific and definite. He knows just what to do at all times and can proceed with his task without waiting for the teacher to make an assignment. Individual differences are thus provided for, each pupil advancing at his own rate. This makes it possible to use the book where supervised study is conducted. The book contains many illustrations and is very attractive. One cannot help but feel that it will be favorably received.

C. A. STONE

A new text in United States history.—Any book by Henry W. Elson is interesting; many men write histories but few with his inimitable insight. The tendency to vitalize the subject matter of American history is observed in a new Elson book¹ prepared for use in junior high schools.

The author has aimed to "emphasize human interests and human action for the purpose of interesting the young reader, giving at the same time adequate treatment for a book of this grade of the more mature subjects such as tariff, finance, foreign relations, and government problems" (p. iii). The accomplishment of this aim seems evident in the following chapters: "Colonial Life," "A View of America," "The Constitution and Self-Government," "The Great West of the Early Days," "Industries and Inventions," "Growth of Industry and Transportation," and "Growth and Progress."

The remaining thirty-two chapters are also written with the motive of interest as the basis, but they are more conventionally treated. The usual treatment of subject matter is illustrated by the following chapters: "The Southern English Colonies," "War and Independence," "The New Government in Motion," "Jefferson and Democracy," "The Civil War," and "McKinley and the Spanish-American War."

The last thirty-two pages of the book are devoted to the history of the United States since the beginning of the Wilson administration. The author does not depart from the older method of devoting the greater part of the text

¹ Henry W. Elson, *United States: Its Past and Present*. Chicago: American Book Co., 1926. Pp. xxxviii+550. \$1.60.

to early history. Undoubtedly, the present tendency is toward greater consideration of more recent events.

A unique feature of the book is the interesting and valuable use of "Side Talks," which follow the majority of the chapters. In these "Side Talks" the author has related unusual and significant incidents, which lend a vivid realism to the story. It is this touch of human interest which makes history a living subject to boys and girls of the junior high school age.

The book does not attempt a unitary organization and is therefore not a contribution in the field of experimental education. It is, however, an interesting and adequate treatment of the history of the United States. The fact that there are thirty-nine chapters illustrates the lack of large-unit organization. Educators suggest that not more than sixteen units of thought be required in any history course, and a smaller number is to be desired. However, the author has organized each of the thirty-nine chapters into small thought units, which plan is superior to the older chronological organization. Taken as a whole, the book is written with a chronological development, but the individual chapters are organized with a compromised unitary development.

A careful selection of appealing material for the "Side Talks" and an unusual appreciation of child life make this discussion of United States history valuable for junior high school use.

ROBERT WEAVER

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